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October 16, 2015

John L. Flynn
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VIA ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: **MB Docket No. 15-149**
Charter Communications Response to FCC's Information and Data Request

Dear Ms. Dortch:

Enclosed please find a corrected version of Charter Communications, Inc.'s response to the Information and Data Request issued by the Federal Communications Commission on September 21, 2015, in connection with the Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to Transfer Control of Licenses and Authorizations, MB Docket No. 15-149.

Please let me know if you have any questions.

Sincerely,

/s/ John L. Flynn

John L. Flynn

Enclosure

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October 13, 2015

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VIA ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
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Re: **MB Docket No. 15-149**
Charter Communications Response to FCC's Information and Data Request

Dear Ms. Dortch:

Attached please find Charter Communications, Inc.'s ("Charter's") response to the Information and Data Request issued by the Federal Communications Commission ("Commission" or "FCC") on September 21, 2015, in connection with the Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to Transfer Control of Licenses and Authorizations, MB Docket No. 15-149.

The response, which contains proprietary and non-public information, is being submitted on a Highly Confidential basis under the Protective Order in effect in this proceeding. Consistent with the instructions in the Protective Order, a Highly Confidential version is being hand-filed, and copies are being provided to the Media Bureau.

Pursuant to the telephone conferences and meetings that were held between Charter representatives and Commission staff, we understand that the following modifications have been made to the FCC's Information and Data Request to Charter:

Production Requests and Narratives

Charter and the Commission agreed to the following matters regarding Charter's document production and responses.

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Document Production

- Charter's production includes the following documents:
 - Documents produced to the FCC in 2014 in connection with MB Docket No. 14-7, excluding documents that contain Video Programmer Confidential Information ("VPCI"). These documents are marked with the same Bates prefixes and numbers used last year: "CHR-DOJ-0000000000," "CHR-FCC-0000000000" and "CHR-FCC-INT00000." There are gaps in the Bates range where VPCI documents have been removed.
 - Documents produced to the Department of Justice ("DOJ") in 2015 in connection with the current proposed transaction, excluding documents that contain VPCI. These documents are marked with the same Bates prefixes and numbers as used in the submission to the DOJ: "CHR2-DOJ-00000000000." There are gaps in the Bates range where VPCI documents have been removed.
 - Charter's production also includes documents responsive to the FCC's Requests that are not contained in the aforementioned document sets. These documents are marked with the Bates prefix "CHR2-FCC-00000000000." Charter has excluded documents containing VPCI from these new materials, and there are gaps in the Bates range where VPCI documents have been removed.

Date Ranges

- Charter is producing documents for the time period July 24, 2013 – July 24, 2015, subject to the following exceptions:
 - The productions to the FCC in connection with the prior transaction and to the DOJ in connection with the current transaction include documents from earlier time periods.
 - Charter updated its search, review and production of documents through September 11, 2015, which is the same update conducted for the production to the DOJ, with minor exceptions noted below.

Custodians

- In response to the FCC's Requests for "all documents" relating to specified matters, Charter has searched the files of and is producing responsive, non-privileged documents for the following custodians:
 - Thomas Rutledge, President & CEO
 - Christopher Winfrey, EVP, CFO

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- Danyel Schoenemann, VP, Corporate Planning
 - Charles Fisher, SVP, Corporate Finance
 - John Bickham, EVP, COO
 - James (Jim) Blackley, EVP, Engineering & IT
 - Donald Detampel, EVP & President Commercial Services
 - Allan Singer, SVP, Programming
 - RB Lerch, VP, Programming
 - Cheryl Von Sprecken, VP, Programming
 - Jon Hargis, EVP & Chief Marketing Officer
 - Allan (Victor) Sampson, SVP, Marketing
 - David Andreski, VP, Market Analysis & Forecast
 - Joseph Leonard, SVP, Marketing and Creative Strategy
 - Richard DiGeronimo, EVP, Product & Strategy
 - Christopher Hill, VP, Business Development
 - Gary Schanman, SVP, Video Products
 - Thomas Adams, EVP, Field Operations
 - David Scott Weber, EVP, Network Operations
 - Marti Moore, VP, Strategic Program Development
 - Carl Leuschner, VP, Internet/Phone Products
 - Peggy Giaminetti, VP, Circuit Operations
 - Jodi Robinson, SVP, UX Design and Development
 - James Rolls, SVP and Chief Technology Officer
- Charter searched the files of additional custodians in connection with specific Requests, as described further below.

Search Terms

- Charter used the search terms identified in Exhibit A to screen for responsive documents.

Confidential Treatment

- Pursuant to the Protective Order and per agreement with Commission staff, Charter is submitting all documents responsive to the Requests on a “Highly Confidential” basis, except that Charter has made a good faith effort not to mark publicly available information as “Highly Confidential.”

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Personally Identifiable Information

- Charter has redacted individuals' personally identifiable information ("PII") (e.g., social security numbers, dates of birth, account numbers) from certain documents. Approximately five documents have not been produced because they consist almost entirely of PII.

Newsletters/Articles/Email Alerts

- Charter has excluded from its production publicly available newsletters, articles and email alerts on the same basis as Charter excluded such documents from its production to the DOJ in connection with the current proposed transaction.

Privilege Log and Supplemental Production

- Charter will provide a privilege log in a supplemental filing, along with any additional responsive documents that are determined to be non-privileged in the course of preparing the log.

Data Requests and Templates

Charter and the Commission agreed to the following modifications and clarifications to the following specific Requests. Unless otherwise specified, the modifications have been made to conform the responses to the information Charter maintains in the normal course of business.

Request 2

- The cross reference to Request 3 is eliminated.

Request 3

- To the extent available, Charter is providing a copy of each business plan in effect during the July 24 2013-2015 time period for the relevant services.

Request 13

- "[O]r another person" is deleted.

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Request 20

- Any communications between Charter, Time Warner Cable, Bright House Networks or Comcast Corporation regarding the current transaction or the 2014 transaction involving these parties have been excluded.

Request 21

- Pricing information is being provided without identifying the relevant programmer, and, to the extent possible consistent with Instruction 2, Charter is providing documents sufficient to show “cost savings, including how they were passed through to subscribers” rather than all documents on this topic.

Request 22

- Charter has excluded documents solely relating to environmental, tax, human resources, OSHA, or ERISA issues.

Request 30

- Charter is producing all relevant, non-privileged “policies, procedures and practices” rather than all documents relating to these items.

Request 46

- In responding to this Request, Charter has excluded tools utilized to thwart botnet and other malicious attacks.

Request 47

- Charter is describing and identifying any policies regarding the factors it considers or considered in negotiating the terms of any interconnection agreement and producing documents sufficient to show such policies.

Request 58

- The term “interconnection” for purposes of this question means peering, transit or another connection involving a direct customer relationship with an edge provider.

Request 61

- In addition to the custodians and time periods applicable generally, Charter:

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1. searched the files of Kurt Klocke, (Director of Engineering), and Nancy Buelman (Director of Finance), from July 24, 2013 through September 28, 2015, and is producing responsive, non-privileged documents.
2. searched emails sent by Richard Dykhous (General Counsel) to Netflix regarding negotiations of Charter's interconnection policy announced July 15, 2015 and is producing responsive, non-privileged documents.

Request 73

- "Customer location" is being provided by DMA.

Request 107(a) - Attachment A (CUID, PSID)

- Charter's response to this Request is limited to Charter's current CUID/PSID designations of its footprint.

Request 107(b),(c)

- Charter is responding by providing a report on competition at the zip-code level sourced from an outside provider (Centris).

Request 107(d)

- Charter is providing the reports produced in response to the 2014 RFI.

Request 107(f)

- Charter is providing a set of annual historical channel lineups and rate cards by area, dating to 2009. The documents are in pdf format and are text-searchable.

Requests 107(a) - Attachment A, 108(a) - Attachment B, 108(c) - Attachments C.1-C.9, 109(a) - Attachment D, 114(a) - Attachment H, 114(b) - Attachment I

- For data sourced to the EDW database, Charter is providing monthly snapshots of subscribers taken on the 21st of each month, rather than the last day of each month.

Request 108

- Charter's response does not include wide area network, carrier, or enterprise customers.

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Request 108(a) - Attachment B

- **Plan ID, Plan Name**
 - Charter is answering this part of the Request for each combination of video tier, Internet tier, and phone tier.
- **Subscriber Tenure Columns**
 - Charter is providing subscriber tenure defined at the level of service bundle, rather than service tier.
- **Termination Fee Columns**
 - The relevant responses are zero because Charter no longer sells packages subject to contract terms and termination fees, and has not done so since 2012.
- **Usage Data**
 - Charter is producing the requested data at the most disaggregated geographic level at which it is available.

Requests 108(a) - Attachment B, 108(c) - Attachment C.3, 109(a) - Attachment D

- For requests concerning connections, Charter is providing counts of customers who were not customers in the previous month, which may include persons who were customers in prior months.

Requests 109(b), 110(a) - Attachment E, 114(b) - Attachment I

- For portions of the requests that pertain to programming expenses, Charter is limiting its response to the channels tracked in its “PETS” database.

Request 111 - Attachment F - “Purchases of Transit Service” Table

- Charter is using the capacity for each provider from the last weekly report from each month.

Request 118

- Charter will provide an updated list of its databases under separate cover and explaining these databases to the FCC staff.

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Request 120

- Charter is providing documents in folders corresponding to the relevant questions in lieu of a chart.

Please let me know if you have any questions.

Sincerely,

/s/ John L. Flynn

John L. Flynn

Enclosures

cc: V. Lemmé

EXHIBIT A

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All Terms
"edge provider*" w/15 (churn OR retain* OR reten* OR acqui*)
"edge provider*" w/15 demand w/10 service
"excessive use" w/15 trial w/15 cost w/15 monitor
"excessive use" w/25 trial w/25 (budget OR project* OR forecast* OR cost* OR services OR revenue*)
"excessive use" w/25 trial w/25 (plan OR ceas* OR terminat* OR discontin* OR end)
"Spectrum" w/15 (TWC OR "Time Warner" OR BH OR "Bright House") w/15 equip*
("cloud computing" OR Worldbox) w/25 (sav* OR efficien*) w/25 (tech* OR equip* OR software)
("customer lifetime value" OR CLV OR "present discounted value") w/15 acqui* w/15 (customer OR subscriber)
("data cap" OR usage* OR UBP OR "usage based pric*" OR "usage-based pric*") w/15 ("internet access data service*" OR video)
("data cap" OR usage* OR UBP OR "usage based pric*" OR "usage-based pric*") w/15 (cost* OR trial* OR stud* OR test*)
("data cap" OR usage*) w/15 (download OR purchas* OR buy OR compet*)
("Internet backbone" OR backbone) w/15 (build OR construct OR strategy OR benef*)
("Spectrum Guide" OR Worldbox) w/15 (invest* OR sell OR sale OR provide OR offer OR licens*)
((CBS w/2 Access) OR (Comcast w/2 Stream) OR (DISH w/2 Sling) OR (HBO w/2 Now) OR (Sony w/2 Vue) OR (Amazon or Netflix or Hulu) OR (OTT OR "Over the top" OR stream*)) w/10 (substitute* or complement*)
((trouble OR error) w/15 (report OR alert OR edge provider* OR subscriber OR customer OR website)) w/50 internet
((Vertical* OR integrat*) w/25 (analy* OR report* OR model* OR stud*)) w/25 (Safari or deal* or merger* or transaction* or product* or service*)
((Vertical* OR integrat*) w/25 (foreclose* OR compet* OR concentrate* OR pric*)) w/25 (Safari or deal* or merger* or transaction* or product* or service*)
((Worldbox OR "Spectrum Guide") w/15 (customer* OR subscrib*)) w/25 serv*
((Worldbox OR "Spectrum Guide") w/15 (run OR operat*)) w/15 equipment
(ad* OR marketing OR promo*) w/25 (CDN OR "Content Delivery Network*" OR "business service*" OR "internet access service*" OR "internet traffic exchange*" OR "internet backbone service*" OR "edge provider*" OR "video programming" OR "MVPD" or "OVD" "telephone service*" OR "bundled service*" OR "enterprise service*")
(chang* OR modif* OR alter*) w/10 ((peer* OR interconnect*) w/5 (policy OR requirement*))
(creat* OR launch* OR acquir* or distribut*) w/20 (RSN OR "regional sport* network")
(HBOnow OR "HBO Now")
(interconnection w/5 agreement) w/15 (negotiat* OR term*)
(interconnection w/5 agreement) w/15 (Netflix OR Cogent OR Level 3 OR Akamai OR Limelight OR Google)
(invest* OR spend* OR cost*) w/15 (new OR improv*) w/15 (product* OR service*) w/15 (Safari OR deal OR transaction OR merger)

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(Malone OR Liberty OR "Advance/Newhouse" OR Newhouse) w/50 program*
(OTT OR "Over the top" OR stream*) w/5 Charter
(Safari OR deal OR transaction OR merger) w/20 (secur* OR cyber* OR NIST OR "National Institute of Standards and Technology" OR (E911 OR NG911 OR "text-to-911"))
(service* w/10 discontinu*) w/50 internet
(service* w/10 disrupt*) w/50 internet
(service* w/10 dissatisf*) w/50 internet
(service* w/10 outage*) w/50 internet
(usage w/15 cap) w/10 residential w/15 (ceas* OR terminat* OR discontin* OR end)
(Vertical* OR integrat*) w/25 ((analy* OR report* OR model* OR stud*) w/25 (Safari or deal* or merger* or transaction* or product* or service*))
(Vertical* OR integrat*) w/25 ((foreclose*OR compet* OR concentrate* OR pric*) w/25 (Safari or deal* or merger* or transaction* or product* or service*))
(Worldbox OR "Spectrum Guide") w/15 ((customer* OR subscrib*) w/25 serv*)
(Worldbox OR "Spectrum Guide") w/15 ((run OR operat*) w/15 equipment)
CBS w/5 Access
Comcast w/5 Stream
congest* w/10 (service* OR "edge provider*" OR churn OR retain* OR reten* OR acqui*)
customer w/10 (migrat* OR transit*) w/15 (merger OR transaction OR deal OR BHN OR "Bright House" OR TWC OR "Time Warner Cable" OR safari)
DISH w/2 Sling
geographic* w/15 (ration* OR cluster*) w/10 (operat* OR program* OR advert* OR Internet OR broadband OR interconnection)
interconnection w/15 (policy OR strategy)
interconnection* w/15 (peering OR traffic OR port* OR capacity OR congest* OR charge* OR util*)
modem w/15 (pric* OR bill*)
Sony w/2 Vue
third party applicat*
usage w/15 cap w/10 (strateg* OR objective* OR budget* OR forecast* OR project* OR improv*)
"47 C.F.R." w/2 "76.100"
"47 C.F.R." w/2 "76.130*"
"amazon prime" w/25 (compet* OR stream* OR pric* OR discount* OR sal*)
"Department of Justice"
"E Television"
"E TV"
"Entertainment Television"
"Federal Trade Commission"
"Google Play"
"Liberty Global"
"Liberty Interactive"
"Online Video Distribution"
"Time Warner Cable SpORtsNet
"Time Warner"

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((tier OR promot*) w/10 market*) AND (strateg* plan*)
(block* OR stop* OR limit* OR hinder* OR slow* OR priOR*) w/10 (service* OR content* OR program*)
(Dish Direct) w/15 (compet* OR pric* OR agree* OR rat* OR los*)
(entr* OR expand*) w/15 "multichannel video program distribut*"
(entr* OR expand*) w/15 ("Video-on-Demand" OR "Video on Demand")
(entr* OR expand*) w/15 broadband
(entr* OR expand*) w/15 DMA
(entr* OR expand*) w/15 Internet
(entr* OR expand*) w/15 ISP
(entr* OR expand*) w/15 market
(entr* OR expand*) w/15 MVPD
(entr* OR expand*) w/15 OVD
(entr* OR expand*) w/15 program*
(entr* OR expand*) w/15 VOD
(iN Demand) w/15 (ty* OR pric* OR cost* OR "must have")
(promo* OR discount* OR subsid*) w/15 ("gross adds" OR "gross additions" OR "GAs" OR "customer life" OR churn deact*)
(retain* OR retention) w/10 (sale OR share* OR business OR customer* OR subscriber* OR advertiser*)
(strat* OR plan*) w/10 (long-term OR market)
(subscriber* w/20 decreas*) AND ((sav* OR pass) w/2 through)
(subscriber* w/20 decreas*) AND discount*
(subscriber* w/20 decreas*) AND rebate*
(subscriber* w/20 drop*) AND ((sav* OR pass) w/2 through)
(subscriber* w/20 drop*) AND discount*
(subscriber* w/20 drop*) AND rebate*
(subscriber* w/20 lower*) AND ((sav* OR pass) w/2 through)
(subscriber* w/20 lower*) AND discount*
(subscriber* w/20 lower*) AND rebate*
(subscriber* w/20 reduc*) AND (sav* OR pass) w/2 (through)
(subscriber* w/20 reduc*) AND discount*
(subscriber* w/20 reduc*) AND rebate*
(synerg* OR effici*) AND (Comcast OR "Time Warner" OR TW OR Cox)
(tak* OR took OR win* OR won OR los* OR churn OR switch OR retention OR retain) w/10 customer*
(tak* OR took OR win* OR won OR los* OR churn OR switch OR retention OR retain) w/10 subs
(tak* OR took OR win* OR won OR los* OR churn OR switch OR retention OR retain) w/10 subscriber*
(tak* OR took OR win* OR won OR los* OR churn OR switch OR retention OR retain) w/10 business
(tak* OR took OR win* OR won OR los* OR churn OR switch OR retention OR retain) w/10 sale*
(tak* OR took OR win* OR won OR los* OR churn OR switch OR retention OR retain) w/10 share
(tier OR promot*) w/10 strateg*

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(wireless OR WiFi OR Wi-Fi) w/10 (compet* los* pric* rate)
ABC
ABC and (ty* OR pric* OR cost OR "must have")
ADM
Agree* w/25 cut*
Agree* w/25 drop*
Agree* w/25 maintain*
Agree* w/25 reduc*
Agree* w/25 set*
Agree* w/25 compet*
Agree* w/25 decreas*
Agree* w/25 discount*
Agree* w/25 increase*
Agree* w/25 lower*
Agree* w/25 min*
Agree* w/25 negotiate*
Agree* w/25 rais*
Agree* w/25 rebat*
Akamai
Albritton
allocat* w/15 bandwidth
Amazon Fire
Amazon Prime
Amazon TV
AMZN
anticomp*
anti-comp*
Antitrust
Anti-trust
Apple TV
ARPU
AT&T AND compet*
att AND compet*
Authenticate
average revenue per user
Belo
blackout* w/25 (program* OR network OR ABC OR CBS OR NBC OR FOX OR retrans*)
blackout* w/25 (threat* OR pric* OR negot* OR dark)
Bravo
Bright House
Brighthouse
brochure w/10 (contract or special)
BT Group
bundl* w/25 (pric* OR tier* OR compet* OR discount* OR remov* OR retain*)
Business plan
C2
Cable One

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Cable SpORts Southeast
CableOne
Cablevision
capacity w/15 "build out"
capacity w/15 buildout
capacity w/15 chang*
capacity w/15 expan*
capacity w/15 increas*
capacity w/15 invest*
capacity w/15 upgrade*
capacity w/15 usage
carr* w/15 "Big Ten"
carr* w/15 "regional spORts network"
carr* w/15 ACC
carr* w/15 B10
carr* w/15 Big12
carr* w/15 channel
carr* w/15 disput*
carr* w/15 distribution
carr* w/15 licens*
carr* w/15 MLB OR basebal
carr* w/15 NASCAR
carr* w/15 NBA OR basketball
carr* w/15 NCAA OR college
carr* w/15 network
carr* w/15 NFL OR football
carr* w/15 NHL OR hockey
carr* w/15 Pac12
carr* w/15 packag*
carr* w/15 pric*
carr* w/15 program*
carr* w/15 remov*
carr* w/15 RSN
carr* w/15 SEC
carr* w/15 spORt*
carr* w/15 threat
carr* w/15 tier
carr* w/15 value
carr* w/25 "must carry"
carr* w/25 bundle
carr* w/25 Comcast
carr* w/25 discount
carr* w/25 Liberty
carr* w/25 negot*
CBS
CBS and (ty* OR pric* OR cost OR "must have")
CenturyLink

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Cheetah
Chiller
churn
Cloo
Cluster*
CNBC
CNBC WORLD
Cogeco
Cogent
Comcast
compet* w/10 (ad OR advert*)
Compet* w/25 "tier"
Compet* w/25 package
Compet* w/25 position
Compet* w/25 share*
competitor* w/10 complain*
competitor* w/10 threat*
Complain*
congest*
conspir*
core revenue
cost center*
cost saving*
cost w/15 "per sub*"
cost w/15 acqui*
cost w/15 network*
cost w/15 program*
cost w/15 subs*
cost w/2 decreas*
cost w/2 drop*
cost w/2 lower*
cost w/2 reduc*
cost w/2 sav*
cost* per point
cost* w/15 deploy*
Cox
CPP
customer* w/10 complain*
customer* w/10 threat*
customer* w/15 relation*
data w/2 allowance
data w/2 amount
data w/2 usage
Data w/20 ((speed OR usage) AND (limit* OR restrict* OR curtail* OR slow*))
Data w/20 (throughput OR load* OR cost* OR buildout OR threshold* OR cap* OR tier*)
DBS

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designated market area
DirecTV
disconnect* w/10 analys*
disconnect* w/10 repORt*
disconnect* w/10 stud*
disconnect* w/10 summar*
discount* w/25 (compet* OR pric* OR agree* OR rate OR tier*)
discount* w/25 (drop* OR promo* OR special OR negotiate OR servic*)
discount* w/25 bundle
discount* w/25 customer
Dish
Disney and (ty* OR pric* OR cost OR "must have")
dis-synerg*
DOJ
edge provider*
efficienc* w/20 compet*
efficienc* w/20 market
Esquire network
eyeballs
Facebook
FEARnet
FiOS
fixed cost*
footprint w/15 expan*
footprint w/15 "build out"
footprint w/15 buildout
footprint w/15 invest*
footprint w/15 upgrade*
FORecast* w/10 Charter
Fox
Fox and (ty* OR pric* OR cost OR "must have")
FTC
G4
Gannett
geographic* w/2 rational*
Golf Channel
googel w/25 fiber
Google Fiber
google w/25 compet!
google w/25 fiber
Gray
gross additions
gross adds
GTT
Hart Scott
HBOGo
HoosierTV

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HSR
Hulu
innovat* w/10 (pric* OR Program* OR rat* OR fORmat* OR affiliat*)
Insight
interconnect w/15 upgrad*
Interconnect*
Knology
L3
latency
Level 3
Liberty
Limelight
LMDS
los* w/10 customer*
los* w/10 sale*
los* w/10 share
LSA
Maffei
Malone
Manag* w/10 broadband
Manag* w/10 data
Manag* w/10 packet*
manag* w/10 polic*
Manag* w/10 traffic
market w/10 share
maverick
maximum acceptable network utilization
Media w/5 General
Mediacom
Meredith
MFN w/25 (prog* OR carr* OR pric* OR compet* OR agree* OR limit* OR stream* OR window*)
Midco SpORts
MLB network
MMDS
mobile w/5 (wireless OR WiFi OR Wi-Fi)
monopoly
MSNBC
MSO w/25 (Comcast OR TWC OR Time Warner OR Charter OR Liberty OR DirecTV OR Verizon)
multiple system operator
mun2
must carry
MVNO w/5 (wireless OR WiFi OR Wi-Fi)
NBC
NBC and (ty* OR pric* OR cost OR "must have")
NBC SpORts network

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NBCU
NCC Media
Neflix
Negotiat* w/15 "per subscriber"
Negotiat* w/15 carriage
Negotiat* w/15 distribut*
Negotiat* w/15 licens*
Negotiat* w/15 programming
net additions
net adds
net neutrality
Netflix
Netlfix
Netlix
network w/15 "build out"
network w/15 buildout
network w/15 expan*
network w/15 invest*
network w/15 upgrade*
network w/15 capacity
network w/15 densi*
network w/15 development*
network w/15 efficienc*
network w/15 interconnect*
network w/15 perform*
network w/15 speed
network w/15 synerg*
network w/15 upgrad*
network w/15 utiliz*
New England Cable News
Nexstar
NHL network
Nielsen OR Neilsen OR Nielson OR Neilson
online w/10 video
Open Connect
operations plan
OTT
OVD
over the top
overbuilder
Oxygen
packet loss
pamphlet
Paramount
peering
planning w/10 Charter
polic* w/15 data

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pric* analys*
pric* list*
pric* plan*
pric* w/15 "per sub*"
Pric* w/15 agree*
Pric* w/15 analys*
Pric* w/15 analyz*
Pric* w/15 attract*
Pric* w/15 budget
Pric* w/15 competit*
Pric* w/15 cut*
Pric* w/15 decreas*
Pric* w/15 discount
Pric* w/15 drop*
Pric* w/15 increase*
Pric* w/15 maintain*
Pric* w/15 negotiate*
pric* w/15 network*
Pric* w/15 offer*
Pric* w/15 policy
pric* w/15 program*
Pric* w/15 promotion*
Pric* w/15 rais*
Pric* w/15 rebate
Pric* w/15 reduc*
Pric* w/15 special
Pric* w/15 strat*
price* OR rate* w/2 set*
price* OR rate* w/2 fix*
Priorit* w/15 broadband
Priorit* w/15 data
Priorit* w/15 packets
Priorit* w/15 traffic
program access
program carriage
program* blackout*
program* w/15 "market test*"
program* w/15 distribution
program* w/15 licens*
program* w/15 packag*
program* w/15 survey*
program* w/25 window*
promot* w/10 plan*
Quest
rate w/2 advantage
rate* w/15 agree*
rate* w/15 analys*

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rate* w/15 analyz*
rate* w/15 attract*
rate* w/15 budget
rate* w/15 competit*
rate* w/15 cut*
rate* w/15 decreas*
rate* w/15 discount
rate* w/15 drop*
rate* w/15 increase*
rate* w/15 maintain*
rate* w/15 negotiate*
rate* w/15 offer*
rate* w/15 policy
rate* w/15 promotion*
rate* w/15 rais*
rate* w/15 reduc*
rate* w/15 special
rate* w/15 strat*
RCN
retrans consent fee*
retrans consent negotiation*
retrans fee
retrans pric*
retrans revenue
retrans* w/25 (fee OR cost OR charge OR pric* OR compet* OR internet OR online OR network OR bundl* OR revenue* OR negot* OR consent OR program*)
retransmission consent negotiation*
retransmission fee
retransmission pric*
retransmission revenue
RL TV
Roku
RSN
Safari
Saigon Broadcasting Television network
sal* w/25 (compet* OR pric* OR agree* OR rate OR tier*)
sal* w/25 (drop* OR promo* OR special OR negotiate OR servic*)
sal* w/25 bundle
sal* w/25 customer
sal* w/25 discount
Savvis
Scale w/20 (compet* OR pric* OR margin* OR cost* OR revenue* OR profit* OR safari OR transaction* OR deal*)
service* w/10 discontinu*
service* w/10 disrupt*
service* w/10 dissatisf*
service* w/10 outage*

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service* w/10 rat*
service* w/10 satisf*
service* w/10 survey
ShopNBC
Sinclair
SMATV
sony w/25 tivo
Sports rights
Sprint
Sprout
Standalone broadband
stream* w/25 (pric* OR compet* OR discount* OR sal*)
stream* w/25 (program* OR dela* OR content*)
Streampix
Style network
subscriber* w/15 relation*
SuddenLink
Sunshine
SyFy
synerg*
synerg* w/20 compet*
synerg* w/20 market
Tata Communications
Telecom Italia
Telemundo
Television KOREa
The Weather Channel
third party applicat*
Threat w/20 business*
Threat w/20 compet*
Throt*
tier w/10 (plan OR strateg* OR compet* OR package)
Tiger
Time Warner Cable News NY
Tivo
T-Mobile
TPA
Traffic w/15 favor*
Traffic w/15 hinder*
Traffic w/15 limit*
Traffic w/15 slow*
Traffic w/15 stop*
transaction pric*
TV One
TWC
TWC DepORtes
Universal

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Universal HD
Universal SpORts
Univision Deportes
Univision w/25 (carr* OR pric* OR negotiate* OR discount* OR Tier*)
USA network
usage based pric*
U-Verse OR Uverse
Verizon Wireless
Versus
Viacom
Warner
Wave
WB
Wide Open West
window* w/25 (delay OR stream* OR extend* OR increas* OR decreas*)
window* w/25 (program* or content* or carr*)
Windowing
WOW
Xbox
Yahoo
YouTube
Zayo
Time Warner Cable Deportes
Time Warner Cable SportsNet LA
Time Warner Cable Sports Channel
SportsNet LA
SportsNet Los Angeles
Sports Pass
Dodgers
Lakers
Galaxy
Dish Sling
Sony Vue
CBS All Access
HBO Now
HBONow
BHN
BH
usage-based pric*
UBP
Safari II
set-top box
set top box
World Box
Worldbox
TV Everywhere
holdback

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hold-back
ESPN
SlingTV
Sling TV
Chile
Bolivia
Tierra del Fuego
TDF
“full season stacking”
Authentication
Exclusive* w/15 (content OR distribut* OR online OR Internet)
Internet w/10 distribution
MFN w/25 content
NFLX
Restrict* w/15 (content or distrib* or online or Internet)
Alternat* w/3 distribut*
Sony w/20 (online or Internet)
SVOD
peer*

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of)

Applications of Charter Communications, Inc.,)
Time Warner Cable Inc., and Advance/Newhouse)
Partnership for Consent to Transfer Control of)
Licenses and Authorizations.)

MB Docket No. 15-149

**RESPONSE OF CHARTER COMMUNICATIONS, INC. TO
INFORMATION AND DATA REQUESTS DATED SEPTEMBER 21, 2015**

October 13, 2015

INTRODUCTION

In response to the letter dated September 21, 2015 from William T. Lake, Chief of the Media Bureau, to the accompanying Information and Data Request to Charter Communications, Inc., Charter Communications, Inc. (“Charter” or the “Company”) provides the following answers and responsive documents, as applicable. Unless otherwise defined herein, capitalized terms shall have the meanings set forth in the Definitions section of the Information Request.

Charter has based its responses on a review of available documents that are reasonably likely to contain responsive information and on inquiries of those individuals and available sources that are likely to have relevant information. In certain cases, Charter does not maintain in the ordinary course of business some of the information requested, or does not maintain the information in the precise manner requested.

In addition, per discussions with Commission Staff, Charter notes that several qualifications and agreements apply regarding its submissions. These modifications appear in the attached cover letter from Charter to Marlene Dortch, dated October 13, 2015 (“Cover Letter”) and are referenced as necessary in the responses herein.

The narratives, attachments and submitted data contain material that is extremely sensitive from a commercial, competitive and financial perspective, and that, in the normal course of its business, Charter would not reveal to the public, to its competitors or to other third parties. Per discussions with Commission Staff, Charter is submitting these responses on a Highly Confidential basis under the Joint Protective Order in effect in this proceeding.¹

Redacted submissions are marked, **“REDACTED – FOR PUBLIC INSPECTION,”** and are

¹ *Applications of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership for Consent to Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 15-149, Protective Order, FCC 15-110 (Sept. 11, 2015) (“Protective Order”).

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being filed electronically in the Commission’s Electronic Comment Filing System (“ECFS”).

The confidential, unredacted submissions are marked “**HIGHLY CONFIDENTIAL INFORMATION – SUBJECT TO PROTECTIVE ORDER IN MB DOCKET NO. 15-149 BEFORE THE FEDERAL COMMUNICATIONS COMMISSION**” and are being delivered to the Secretary. Additional copies of the unredacted response are being delivered as instructed in the Information Request and will be made available pursuant to the Protective Order.

Any inadvertent inclusion of material subject to the attorney-client, attorney work-product, or other applicable privilege does not constitute a waiver of that privilege. Charter requests the return or destruction of all confidential material at the conclusion of this proceeding.

[remainder of this page intentionally left blank – responses follow]

INFORMATION AND DATA REQUEST TO CHARTER COMMUNICATIONS, INC.

REQUEST 1

1. Produce all documents relating to competition in the provision of each relevant service in each relevant area, including, but not limited to, consumer surveys or studies, market studies, forecasts and surveys, and all other documents relating to:

- a. sales, market share, number of subscribers, or competitive position of the Company or any of its competitors;
- b. the relative strength or weakness of persons providing each relevant service;
- c. the extent to which providers of each relevant service compete with each other;
- d. supply and demand conditions, including all documents discussing demand elasticity, the impact of price or fee changes, and customer substitution;
- e. attempts to win customers from other companies and losses of customers to other companies, including:
 - (i) churn data analysis thereof;
 - (ii) studies indicating that a customer left or switched to the Company because of the absence or availability of particular video programming (including figures on subscribers lost or gained);
 - (iii) documents relating to the Company's experience or success in obtaining customers through marketing targeted at a particular MVPD or OVD competitor, including the offers made and figures on the amount spent on the marketing effort, the number of new subscribers gained, average churn rates for such subscribers and revenue realized by the Company;
 - (iv) documents relating to the entry, competitive impact, or the Company's response to any OVD, including but not limited to Netflix, Hulu, Amazon Instant Video, Dish Sling TV, Sony Vue, CBS All Access, and HBO Now; and
 - (v) customer lifetime value, subscriber acquisition costs, costs per gross addition, and subscriber retention costs, including consumer costs incurred in switching to another person's relevant service, and data and studies analyzing the source of the Company's new subscribers, why subscribers disconnect service with the Company and the reasons for disconnections, and factors affecting

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consumers' decisions to switch to or from a relevant service offered by the Company, including but not limited to pricing, quality of service and disputes between the Company and edge providers, CDNs or transit service providers;

- f. consumer views or perceptions of MVPDs, and OVDs video programming, including the impact of placing programming in a particular neighborhood or tier, the impact of not offering certain programming, the ability to substitute other programming, the impact of bundling more than one programming network, or the impact of pricing on decisions to purchase video programming or MVPD service, including ratings and consumer surveys relating to video programming offered by the Company;
- g. allegations that any person that provides any relevant service is not behaving in a competitive manner, including, but not limited to, customer and competitor complaints; threatened, pending, or completed lawsuits; and federal and state investigations, including any carriage or program access complaints filed against the Company with the Federal Communications Commission pursuant to 47 C.F.R. § 76.1301 et seq. or 47 C.F.R. § 76.1000 et seq.;
- h. the Company's decisions whether to block, stop, limit, hinder, slow, favor, prioritize, or otherwise treat the transmission of any OVD provider's services or other edge provider content, including the CDN, transit service provider or peer that supports the service, or to favor, prioritize, or otherwise advantage the Company's relevant service over such competing service, Documents solely relating to unsolicited commercial e-mail (i.e., SPAM) and malicious software need not be produced;
- i. any actual or potential effect on the supply, demand, cost, or price of any relevant service as a result of competition from any other possible substitute service or provider;
- j. the role of innovation in competition or any actual or potential competition between or among any persons relating to improvements or innovations in features, functions, ease of operation, performance, cost or other advantages to users of the services, including the ability to sell or provide targeted advertising services;
- k. the role of reliability and reputation in competition or any actual or potential competition between or among any persons relating to any relevant service;
- l. any evaluation or comparison between any relevant service and any other service, including but not limited to the effect or impact of OVD on MVPD, including studies, reports, analyses, and other documents discussing or referring to research conducted or prepared by any

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consultants, user groups, or other third-parties (such as analyst reports, trade or industry publications);

- m. any customer preferences or selection criteria relating to the purchase or use of any relevant service rather than any other service, or relating to any relevant service offered by the Company rather than any service offered by any other person (including any sales tracking data);
- n. consumer satisfaction with the Company's relevant services (including all documents relating to plans, policies and procedures for addressing concerns raised by rankings and surveys), and consumer substitution between the Company's Internet access service and DSL service, service using fiber to the node technology, service using fiber to the premises technology, service using satellite technology, and mobile wireless broadband services;
- o. the Company's experience in obtaining or retaining customers through marketing or promotions targeted at providers of relevant services, geographic areas, types of customers, including the offers made and the amount spent on the marketing effort, the number of new subscribers gained, churn rates for such subscribers, and revenue realized by the Company;
- p. the characteristics of consumers who are interested in purchasing, or who have purchased, standalone services or bundled services, and the sales, market share or competitive position of the Company or any of its competitors in the sale of standalone services or bundled services;
- q. any advantage or disadvantage to any person arising from the size of the Company's footprint or its subscribership on its ability: (1) to negotiate interconnection agreements with interconnection partners, edge providers, persons who provide Internet backbone services, persons who provide Internet access service, and transit service providers; and (2) competition with other persons that provide MVPD or Internet access services;
- r. any benefit, efficiency, advantage, or disadvantage to any person arising from the size of its footprint or its subscribership on its ability to negotiate with Persons selling or licensing video programming; and
- s. the impact of cord shavers (i.e., MVPD customers who have dropped some but not all MVPD service), cord cutters (i.e., former MVPD customers that have cancelled all MVPD service) and cord nevers (i.e., potential MVPD customers that have never signed up for MVPD service) on the Company's marketing, revenues, and profits of each relevant service.

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Response to Request 1:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 2

2. Produce all documents discussing the Company's plans relating to any relevant service and each item listed in Request 3 below, including, but not limited to, business plans; short-term and long-range strategies and objectives; budgets and financial projections (including costs and potential profits); expansion or retrenchment plans; research and development efforts; plans to better manage those services; plans to reduce costs, improve service, introduce new services, or otherwise become more competitive; plans to improve services or service quality; plans to provide the video programming affiliated with the Company or affiliated with any officer, director, or executive of the Company, or any entity sharing officers, directors, executives or attributable interest holders with New Charter, to unaffiliated OVDs, including, but not limited to, the minimum viable scale necessary for entry, the time required to roll out the service, and the steps taken or additional steps that the Company would need to take to launch the service; all effects that the transaction, if consummated, would have on these plans; and presentations to management committees, executive committees, and boards of directors;. For regularly prepared budgets and financial projections, the Company need only produce one copy of final year-end documents for each year and cumulative year-to-date documents for the current year.

Response to Request 2:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 3

3. Describe, and identify documents sufficient to show, the Company's past and current business and deployment plans with respect to:

- a. DOCSIS 3.1;
- b. IP cable and Wi-Fi access;
- c. mobile wireless broadband services;
- d. any OVD service inside or outside of the Company's current service area;
- e. wireless backhaul services;
- f. build-out to additional homes in your footprint or franchise area, including the Application's claim that the Company will "build out one million line extensions of our networks to homes in our franchise area";
- g. IP set-top-boxes;
- h. user interfaces and programming guides for subscribers;
- i. increasing speeds for Internet broadband services;
- j. business services; and
- k. time-shifted and place-shifted video programming.

Response to Request 3(a):

Charter has been focused on delivering exceptional Internet service since 2012. Charter's investments over the last three and a half years have enabled it to provide minimum broadband speeds of 60 Mbps or 100 Mbps in virtually all of its service areas.² **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

² Charter currently provides a minimum broadband speed of 100 Mbps in its St. Louis footprint.

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Charter has committed, following the Transaction, to offer a minimum broadband speed of an extremely fast 60 Mbps to digital Time Warner Cable Inc. (“TWC”) and Bright House Networks LLC (“BHN”) territories within a year of closing. As to TWC’s and BHN’s analog systems, Charter has committed to deliver minimum broadband at 60 Mbps to these systems within 30 months of closing.

Charter is committed to continuing to be the speed leader, both wired and wirelessly.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] As

Dr. Fiona Scott Morton explained in support of the Public Interest Statement, “[t]he post-merger firm will have an increased incentive to invest in its network to the benefit of subscribers A significant aspect of these investments in fiber, software, and hardware is the increased speed that will become available to the post-merger firm’s high speed data . . . subscribers.”³

Moreover, Charter’s incentives, especially in terms of margins per subscriber, will always cut in the direction of deploying technology that enables faster in-home Internet service.⁴

Response to Request 3(b) and 3(c):

As a result of extensive investment and a commitment to providing the best services, Charter has become a leading communications company. Nowhere is this more apparent than in its provision of residential broadband. Indeed, in 2014, Charter was recognized as providing the

³ Declaration of Dr. Fiona Scott Morton, Theodore Nierenberg Professor of Economics at the Yale School of Management and Senior Consultant at Charles River Associates, ¶ 24 (June 24, 2015) (“Dr. Scott Morton Decl.”).

⁴ *Id.* ¶¶ 41-44.

nation's fastest WiFi.⁵ Charter's strategy, with or without the Transaction, is to be competitive in the public WiFi and mobile wireless broadband market, while maintaining its commitment to providing best-in-class service to the home. Charter subscribers will derive the maximum value from a Charter Internet package if they can access broadband Internet seamlessly, without regard to location, at no incremental cost.

In pursuit of its public WiFi strategy, Charter recently launched an out-of home Wi-Fi service ("Spectrum WiFi") in St. Louis, Charter's largest market. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY

CONFIDENTIAL INFORMATION] As will be discussed at greater length in response to

⁵ See Allion Engineering Services USA, *Allion USA Internet Service Provider Gateway Competitive Analysis* 11 (June 15, 2015).

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Request 89, Charter's approach to WiFi is therefore an example of delayed investment due to lack of scale.

Charter could potentially augment WiFi as part of a wireless strategy by acquiring rights to licensed spectrum. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] These plans remain preliminary and in the evaluation stage; no decision has been made as to which option Charter will pursue.

The Transaction will expedite and facilitate the deployment of New Charter's WiFi network and, if New Charter elects to do so, New Charter's entry into the wireless broadband market. Dr. Scott Morton specifically identified WiFi as an area where the Transaction will yield benefits by allowing Charter to spread the fixed costs associated with building a robust public WiFi network over a larger subscriber base. Moreover, the Transaction will allow New Charter to leverage TWC's and BHN's existing back-end infrastructure and currently deployed out-of-home WiFi access points (which include not just dual-use routers in SMBs but also outdoor locations). The Applicants have also expressly committed to deploy over 300,000 out-of-home WiFi access points within 4 years of closing the Transaction, locking in this public interest benefit beyond any doubt.

Similar logic augurs in favor of the Transaction with respect to entry by New Charter into the wireless market. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY

CONFIDENTIAL INFORMATION]⁶

As part of its larger strategy with respect to the delivery of video programming, Charter also plans, with or without the Transaction, to deliver video content via Internet Protocol (“IP”) through its new “Worldbox” CPE, discussed at greater length below. [BEGIN HIGHLY
CONFIDENTIAL INFORMATION]

[END HIGHLY

CONFIDENTIAL INFORMATION]

Response to Request 3(d):

As will be discussed at greater length in response to Requests 23 and 24, [BEGIN
HIGHLY CONFIDENTIAL INFORMATION]

⁶ Further discussion of Charter’s [BEGIN HIGHLY CONFIDENTIAL
INFORMATION] [END HIGHLY
CONFIDENTIAL INFORMATION] can be found in Response to Request 98.

[END HIGHLY

CONFIDENTIAL INFORMATION]

Charter likewise has now begun deploying a non-set top box offering to potential customers in Charter's current service areas. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

The Transaction will make New Charter a more attractive partner for OVDs and should facilitate and expedite further integration of OVD content and services into the Spectrum Guide. New Charter's larger subscriber base will derive maximum value from their TV offering if they can enjoy any content, seamlessly, regardless of provider. In turn, OVDs will have further incentives to resolve any technical compatibility and application based issues with Spectrum Guide to ensure that New Charter's substantially larger subscriber base can access the OVDs' novel content on the subscribers' set-top boxes.

Response to Request 3(e):

Charter provides high-capacity cell tower backhaul solutions that serve as a solid transport foundation to satisfy the exponential traffic growth of next-generation mobile devices. Charter's fiber network ensures reliable service for critical applications and provides wireless operators a scalable and reliable Ethernet or Optical Wavelength solution for macro-cell backhaul applications.

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Charter has provided cell backhaul solutions for over five years and currently serves over [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] (see table 1 below). It provides fiber-based cell tower backhaul services to all major mobile service operators. As mobile traffic demand continues to grow, Charter has invested in its network to provide increased speeds and capabilities. Charter now offers speeds of up to 10 Gbps for cell backhaul applications.

Charter will offer the 10 Gbps speeds regardless of the Transaction, and these speeds are offered today. As a practical matter, the wireless spectrum available to the radio equipment in a particular macro-cell is the limiting factor on the backhaul speed required. The highest macro-cell backhaul speed Charter has currently deployed to a site is [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]. The Transaction will allow Charter to compete more effectively for macro-cell business because contiguous geographic density will be increased in markets such as [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]. Contiguous geographic density is important because in many cases a single Mobile Telephone Switching Office (“MTSO”) covers an entire metro area. The ability to serve the MTSO directly and a bulk of the macro-cells will help Charter more effectively compete with the incumbent LECs. For example, [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]. The ability for New Charter to serve these locations directly will enable a lower cost structure and more competitive pricing.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

Table 1

Cell Tower	2011	2012	2013	2014	2015 YTD
					June

[END HIGHLY CONFIDENTIAL INFORMATION]

Response to Request 3(f):

In the normal course of business, Charter deploys new line extension to new developments and in response to market demand. Charter’s budget strategy for 2016 anticipates that Charter will continue building new developments and building to homes requested by potential customers where economically viable. While Charter does not plan line extensions several years in advance, as a benefit of the transaction, Charter has committed that New Charter will build out approximately 1.1 million line extensions within 48 months following consummation of the Transaction. This commitment is premised on existing data regarding the number of homes served by Charter, TWC, and BHN, multiplied by anticipated growth rates which were extrapolated based on growth rates between December 31, 2013 and the present. *See* Exhibit 3f-1 (spreadsheet with calculations), Exhibit 3f-2 (supporting data), in the enclosed hard drive in the folder “Request 3.”

Response to Request 3(g):

Charter recently unveiled Worldbox, an innovative set-top box that uses a non-proprietary downloadable security solution. Charter is also simultaneously implementing a video conditional access strategy utilizing this downloadable security, which can be manufactured by third parties. These Worldbox features represent an advance in set-top box development that will continue to enhance the customer experience by enabling greater capabilities, such as additional simultaneous recordings and increased storage capacity for DVR users. Moreover,

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because the Worldbox security system works differently from current set-top boxes, it will provide customers with greater flexibility to retain their set-top box when they move.

The Worldbox will also enable Charter to deliver video programming and even nontraditional content via both IP and traditional video delivery. Moreover, as discussed in response to Requests 12 and 24, the Worldbox CPE provides, among other things, an enhanced ability to run over-the-top applications, a DVR with expanded storage capabilities, and greater compatibility with Spectrum Guide—Charter’s cloud-based user interface and programming guide, discussed at greater length below.

Following the Transaction, Charter plans to introduce the Worldbox to legacy TWC and Bright House customers under Charter’s model of uniform pricing, discussed at greater length in response to Requests 73 and 105. The Transaction will also create incentives for further innovation in set-top-box design and integration of services as discussed at greater length in response to Request 96.

By year end 2015, [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL

INFORMATION] However, budget discussions are still ongoing, and 2016 spending has not yet been approved. Further discussion of the Worldbox CPE is available in response to Requests 92 and 105.

Response to Request 3(h):

As discussed at greater length in response to Request 23, Charter is currently deploying its innovative “Spectrum Guide”—a cloud-based user interface and programming guide that

enhances the consumer video experience and can be accessed through both Worldbox and legacy two-way set-top boxes, even though many older legacy boxes suffer from very limited processing power. By moving logic and computing functions to the cloud, the load on each individual box is vastly reduced. This innovative, cloud-based approach delivers customizable, interactive experience to video subscribers, and enables customers to find video content more easily across cable TV channels and on demand options. Among the improvements associated with the deployment of Spectrum Guide are a more visually satisfying and information-rich guide, better search and discover capabilities, and easier incorporation of OVD and other non-traditional video and interactive content (*e.g.*, Netflix, Hulu, YouTube, and even gaming). In addition to featuring standard linear programming, Video Guide, and Charter's own VOD library, Spectrum Guide is also highly OVD-friendly. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

Response to Request 3(i):

Charter has made delivery of fast, customer-friendly broadband a centerpiece of its business strategy. For example, in nearly 100% of its service areas, Charter's minimum broadband speed tier sold is an extremely fast 60 Mbps (and 100 Mbps in St. Louis), which, among other things, allows several people within a single household to watch high-definition video content online while at the same time using the Internet for other, non-video purposes. Charter makes this extremely fast offering available to customers at a much lower price than other companies. Charter offers broadband as part of its bundles and on a compelling stand-alone basis for those not interested in cable TV. Charter offers these services with simple,

uniform pricing across its footprint and without any usage-based pricing, data caps, modem fees, or early termination fees.

Charter has a history of investing significantly in capacity for interconnection and in otherwise improving its network and services. For example, since the beginning of 2012, the company has invested over \$5.7 billion in technology and infrastructure—a significant figure against the backdrop of the company’s overall size and over \$8.7 billion adjusted EBITDA over the same period. But that commitment to innovation, along with Charter’s transition to a digital network, enabled it to increase its minimum broadband offering from 1 Mbps downstream in 2011 to its present 60 Mbps to approximately **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** of its current customers.

Charter has further demonstrated its competitive business and deployment strategy with respect to increasing broadband speeds in St. Louis, Charter’s largest market. There, Charter offers a minimum broadband speed of 100 Mbps, still priced according to Charter’s uniform pricing model, described at greater length in Response to Request 73.

The Transaction will allow New Charter to continue to improve speeds in “Gigabit” markets, where other providers, such as AT&T, Verizon, and Google are introducing their fastest services. In this way, New Charter will build on the Company’s price-value proposition at the minimum level. New Charter’s broadband strategy therefore reflects, and will contribute to, the virtuous cycle of competition that has been pushing broadband speeds up across the United States.

Response to Request 3(j):

In 2014, business services represented approximately 11% of Charter’s total revenues. Business services offered through Spectrum Business include scalable broadband

communications solutions for businesses and carrier organizations of all sizes such as Internet access, data networking, fiber connectivity to cellular towers and office buildings, video entertainment services and business telephone services.

Small Business. Charter offers services similar to its residential offerings to small businesses (1-19 employees), including a full range of video programming tiers and music services, broadband Internet speeds of up to 100 Mbps downstream (200 Mbps in certain markets), and up to 7 Mbps upstream in its DOCSIS 3.0 markets. These small business services also include a set of business cloud services including web hosting, e-mail and security, and multi-line telephone services with more than 30 business features including web-based service management.

Medium Business. Charter also offers medium-sized businesses (20-199 employees) more complex products such as fiber Internet with symmetrical speeds of up to 10 Gbps, and voice trunking services such as Primary Rate Interface (“PRI”) and Session Initiation Protocol (“SIP”) Trunks, which provide higher-capacity voice services. Charter additionally offers Metro Ethernet service that connects two or more locations for commercial customers with geographically dispersed operations with services up to 10 Gbps. Metro Ethernet service can also extend the reach of the customer’s local area network (“LAN”) within and between metropolitan areas.

Large Business. Charter offers large businesses (200+ employees) with multiple sites more specialized solutions such as custom fiber networks, Metro and long haul Ethernet, PRI and SIP Trunk services. In the large business segment, Charter has been particularly successful with [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] As discussed at greater length in response to Requests 22 and 94, to date, geographic constraints have hindered Charter from competing effectively against incumbent providers with national scale and scope for larger business customers that have multiple office locations in various states. Where a customer’s business spans multiple areas, a cable company with a limited footprint is often not a viable option.

Carrier Wholesale. Charter offers high-capacity last-mile data connectivity services to wireless and wireline carriers, Internet Service Providers (“ISPs”), and other competitive carriers on a wholesale basis.

Over the past five years, business services has been one of the fastest growing areas within Charter (see table 2). Charter continues to invest to extend the reach of its coax and fiber networks to serve additional business customers and add new product capabilities.

Table 2

Charter Five Year Revenue History - Commercial Services			
Year	Current Year Stated Revenue (in millions)	Following Year Restated (in millions)	YoY Growth
Q1 & Q2 '15	\$ 547	NA	
2014	\$ 993	NA	18.2%
2013	\$ 850	\$ 840	19.5%
2012	\$ 658	\$ 711	20.7%
2011	\$ 584	\$ 545	19.2%

Source: Charter Public Filings
Restated revenue resulting from Bresnan acquisition
2012 MDU reclassification - \$10m

Response to Request 3(k):

Charter is engaged in ongoing efforts to improve its video service by enabling more customer-friendly time shifting and place shifting. Charter has committed significant resources to advancing and expanding its capabilities in this regard, and has engaged with programming and technology partners to deliver on those goals.

With respect to video on demand, over the past two years, Charter has held numerous discussions and implemented plans for Charter to expand its number of on-demand titles from approximately **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

Charter's goal is to provide customers what they want, when they want it, on any device.

Expansion of the content library would consist of **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

Finally, with respect to the Spectrum TV App, Charter launched “Download To Go” capabilities on its TV Applications, with **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

**[END HIGHLY
CONFIDENTIAL INFORMATION]**

Documents in support of the Company’s responses to Request are provided in Exhibit 3 in the enclosed hard drive in the folder “Request 3.”

REQUEST 4

4. Identify each person that has entered or attempted to enter into, or exited from, the provision of each relevant service in each relevant area, from 2005 to the present. For each such person, identify the services it provides or provided; the area in which it provided the services, including whether the person has sold or distributed the relevant service in the United States; and the date of its entry into or exit from the market. For each entrant, state whether the entrant built a new facility, converted assets previously used for another purpose (identifying that purpose), or began using facilities that were already being used for the same purpose.

Response to Request 4:

Information and data responsive to this Request are provided herewith in Exhibits 4-1 through 4-12 in the folder designated on the enclosed hard drive as “Request 4.” Note that, based on guidance from FCC staff regarding the definition of relevant services, Charter’s response to this Request does not include separate information for providers of business services. However, Charter believes much of the information in this response is relevant to such services.

Exhibits 4-1 through 4-5 consist of a list of entrants and exits known to Charter for each relevant service during the specified period. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

With respect to the geographic areas in which the different types of firms provide service, MVPD services provided by DBS providers are available on a nationwide basis, and the availability of other providers’ services varies depending on the geographic footprint of the cable operators, telephone companies, municipal utilities, and other companies that provide MVPD services. OVD services are generally available on a nationwide basis to households that have access to the Internet (some by subscription only). Video programming services are generally available on a nationwide basis; the availability of certain specific video programming services

may be regional or local (*e.g.*, regional sports networks). Internet access services provided by mobile wireless or satellite providers are generally available on a nationwide basis, and the availability of other providers varies depending on the geographic reach of the cable, telephone, municipal utility, and other companies that provide these services. Internet backbone services are generally available on a nationwide basis.

In addition to the information referenced above, Charter has compiled information on persons who have operated MVPD and Internet access services within the Charter footprint since January 1, 2009. These data are sourced from a report provided by Centris Marketing Science (“Centris”), which Charter initially purchased for the purpose of responding to FCC Request 2(g) in the now-abandoned Comcast-TWC-Charter transactions. The prior submission has been updated through June 2015 in order to respond to this Request. Please note that the Centris report does not provide all competitors but nonetheless is the most comprehensive third-party source available. Additionally, Centris does not have data on competition in the provision of MVPD services prior to January 2010, so these exhibits capture only entities entering into or exiting from the provision of MVPD services (as opposed to Internet access services) since January 2010.

The Centris report is designed to capture the zip codes in the Charter footprint in which each company provided MVPD or Internet access services in a given month. Therefore, for purposes of Charter’s response, entry into the provision of a particular service is defined as a particular company providing that service in no Charter zip codes in the prior month and any positive number of Charter zip codes in the current month; conversely, exit is defined as a particular competitor providing that service in any positive number of Charter zip codes in the prior month and no Charter zip codes in the current month. As a result, a particular provider may

enter or exit from the provision of a particular service in multiple months through the relevant period. Because the data include all persons providing the relevant service anywhere in a zip code where Charter also provides service, and because in some cases Charter's footprint covers only a portion of a zip code, some of the persons identified in the data may not actually overlap with Charter's footprint. Therefore, the list includes providers who operate in the same zip code as Charter but may not provide services to the same households in that zip code.

Exhibit 4-6 consists of information on persons entering into the provision of MVPD and Internet access services in Charter-served zip codes since January 1, 2009. Column A ("Service Provided") of Exhibit 4-6 indicates for each such person whether they entered into the provision of MVPD or Internet access services. Column B ("Provider Name") provides the name of the person entering into provision of the given service. Column C ("Month of Entry") provides the month in which Centris reports that the given person entered into the provision of the given service.

Exhibit 4-7 consists of information on the areas served by persons identified in Exhibit 4-6 in the month of entry. Column A ("Service Provided") of Exhibit 4-7 indicates for each such person whether they entered into the provision of MVPD or Internet access services. Column B ("Provider Name") provides the name of the person entering into provision of the given service. Column C ("Month of Entry") provides the month in which Centris reports that the given person entered the provision of the given service. Column D ("Zip Code") provides each Charter-served zip code served by the given person entering into the provision of the given service in the month of entry.

Exhibit 4-8 consists of information on persons exiting from the provision of MVPD and Internet access services in Charter-served zip codes since January 1, 2009. Column A ("Service

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Provided”) of Exhibit 4-8 indicates for each such person whether they exited from the provision of MVPD or Internet access services. Column B (“Provider Name”) provides the name of the person exiting from provision of the given service. Column C (“Month of Exit”) provides the month in which the given person exited from the provision of the given service.

Exhibit 4-9 consists of information on the areas served by persons identified in Exhibit 4-8 in the month prior to exit. Column A (“Service Provided”) of Exhibit 4-9 indicates for each such person whether they exited from the provision of MVPD or Internet access services. Column B (“Provider Name”) provides the name of the person exiting from provision of the given service. Column C (“Month of Exit”) provides the month in which the given person exited the provision of the given service. Column D (“Zip Code”) provides each Charter-served zip code served by the given person exiting from the provision of the given service in the month prior to exit.

Exhibit 4-10 consists of information on persons expanding the number of Charter-served zip codes to which they provided MVPD or Internet access services since January 1, 2009. Column A (“Service Provided”) of Exhibit 4-10 indicates for each such person whether they expanded within the provision of MVPD or Internet access services. Column B (“Provider Name”) provides the name of the person increasing the number of zip codes served for the given service. Column C (“Beginning Zip Codes Served”) provides the number of zip codes served by the given person at the beginning of the period. Note that this represents zip codes served in January 2010 for MVPD providers and January 2009 for Internet access providers. Column D (“Ending Zip Codes Served”) provides the number of zip codes served by the given person at the end of the relevant period, which is June 2015 for both MVPD and Internet access providers.

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Column E (“Zip Codes Entered”) provides the increase in zip codes served by the given person during the relevant period.

Exhibit 4-11 provides information on the dates on which expansions in MVPD and Internet access coverage occurred for persons expanding service significantly in Charter-served zip codes. For each MVPD provider that expanded its coverage by 10 or more Charter-served zip codes and each Internet access provider that expanded its coverage by 50 or more Charter-served zip codes during the relevant period, it shows the number of Charter-served zip codes served during each month of the relevant period. Column A (“Service Provided”) of Exhibit 4-11 indicates for each such person whether they expanded within the provision of MVPD or Internet access services. Column B (“Provider Name”) provides the name of the person expanding service. Column C (“Month”) indicates the month to which the data applies. Column D (“Number of Zip Codes Served”) shows the number of Charter-served zip codes the given person served during the given month.

Exhibit 4-12 provides information on the locations where expansion occurred for all persons identified in Exhibit 4-11. Column A (“Service Provided”) indicates for each such person whether they expanded within the provision of MVPD or Internet access services. Column B (“Provider Name”) provides the name of the person expanding service. Column C (“Month”) provides the month during which expansion first occurred. Column D (“Additional Zip Code Served”) provides the additional zip code served by the given person during the given month.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END

HIGHLY CONFIDENTIAL INFORMATION]

MVPD

AT&T Inc. (U-verse): Charter believes AT&T Inc. (U-verse) entered into the provision of MVPD services primarily by converting (upgrading) facilities previously used to provide telephone service and Internet access service.

CenturyLink Prism TV: Charter believes CenturyLink Prism TV entered into the provision of MVPD services primarily by converting (upgrading) facilities previously used to provide telephone service and Internet access service.

Frontier Communications: Charter believes Frontier Communications entered into the provision of MVPD services by acquiring facilities previously used for MVPD services from Verizon and AT&T.

Google Fiber: Charter believes Google Fiber entered into the provision of MVPD services primarily by constructing new facilities.

Shenandoah Telecommunications Company: Charter believes Shenandoah Telecommunications Company entered into MVPD services by converting (upgrading) facilities previously used to provide telephone and Internet access service.

Verizon Communications Inc. (FiOS): Charter believes Verizon Communications Inc. (FiOS) entered into the provision of MVPD services primarily by converting

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(upgrading) facilities previously used to provide telephone service and Internet access service.

OVD

As discussed further in Charter's response to Request 5, entry into the OVD market often does not require a significant investment in facilities, and it is Charter's belief that many OVDs have entered the market without making significant facilities investments, or by relying on leased facilities. Charter does not have specific knowledge of the facilities relied upon by OVD entrants at the time they entered the market.

Video Programming

As discussed further in Charter's response to Request 5, entry into the video programming market often does not require a significant investment in facilities, and it is Charter's belief that many of the persons that have entered the market have done so without deploying significant new facilities, or by relying on leased facilities. Charter does not have specific knowledge of the facilities relied upon by video programming entrants at the time they entered the market.

Internet Access

EPB (formerly Electric Power Board of Chattanooga): Charter believes EPB entered into the provision of Internet access service primarily by constructing new facilities.

Google Fiber: Charter believes Google Fiber entered into the provision of Internet access services primarily by constructing new facilities.

Sling Broadband: Charter believes Sling Broadband entered into the provision of Internet access services primarily by constructing new facilities and using facilities that were already being used for the same purpose.

Internet Backbone

GTT Communications: Charter believes GTT Communications entered into the provision of Internet backbone services primarily by using facilities that were already being used for the same purpose.

Zayo: Charter believes Zayo entered into the provision of Internet backbone services primarily by using facilities that were already being used for the same purpose.

REQUEST 5

5. Provide a list of possible new entrants into the provision of each relevant service, stating why the Company believes each person is a possible entrant and what steps they have taken toward entry and submit all documents relating to requirements for entry into the provision of a relevant service, including, but not limited to, research and development, planning and design, production requirements, distribution systems, service requirements, patents, licenses, sales and marketing activities, and any necessary governmental and customer approvals, and the time necessary to meet each such requirement.

Response to Request 5:

Information and data responsive to this Request are provided in Exhibit 5, which is contained in the folder “Request 5” on the enclosed hard drive. The Company’s response to this Request is based on information obtained through reasonable inquiry of knowledgeable Charter employees, proprietary data available to Charter, and from publicly available sources. Note that, based on guidance from FCC staff regarding the definition of relevant services, Charter’s response to this Request does not include separate information for providers of business services. However, Charter believes much of the information in this response is relevant to such services.

As described more fully below, the sectors in which the transacting parties operate—that is, the markets for the “relevant services”—are among the most dynamic and competitive in the U.S. economy. Technological and marketplace developments throughout the digital distribution and media ecosystem are disrupting traditional business models, forcing incumbents to innovate, and fostering entry and expansion in the markets for each of the relevant services.⁷

As a market participant, Charter is intensely aware that the markets for these services are experiencing rapid entry and expansion. In many cases, entrants are established providers of complementary products, such as with Google’s entry into video programming distribution as an MVPD and Internet access, Netflix’s entry into CDN and video programming, and Microsoft’s

⁷ See, e.g., Joe Flint, *Summer TV Watchers Abandon Cable Shows*, WALL ST. J. (Aug. 17, 2015), available at <http://www.wsj.com/articles/summer-tv-watchers-abandon-cable-shows-1439838550>.

entry into video programming distribution as an OVD. In other cases, start-up firms have been able to establish successful businesses “from the ground up,” such as with the entries of Pluto TV, Vessel, and SnagFilms into OVD, which are discussed below. The developments in video programming distribution, in turn, have provided increased sources of capital and opportunities in the video content sector, resulting in a plethora of quality video programming options for customers to choose from. In its response to Request 5, Charter seeks to present a snapshot of these developments as of the third quarter of 2015.

Video Programming Distribution⁸

The Request for Information defines two types of video programming distribution services: (i) MVPDs, which primarily include cable companies, telephone MVPDs, satellite MVPDs, private companies, and municipal utilities that provide MVPD service; and (ii) OVDs, which include stand-alone OVDs, such as Netflix and Pluto TV, as well as OVDs affiliated with producers of complementary products, such as Amazon’s Prime Video, Google’s YouTube, and Hulu (which is a joint venture of Comcast, 21st Century Fox, and The Walt Disney Company).

Both types of video programming distribution services have experienced extensive entry and expansion in recent years, and Charter believes this trend is certain to continue. In general, firms providing complementary services are possible entrants into video programming distribution because such firms typically have capabilities or own assets that are inputs into or complements to the provision of MVPD or OVD services, such as: ownership of or the ability to

⁸ The Request for Information defines MVPD and OVD as separate Relevant Products and Charter is responding accordingly but without taking a position as to the correct scope of relevant product markets. Whatever definition one uses, however, it is clear that there has been extensive entry and expansion of video distribution providers and the creation of video content for distribution via both traditional MVPD systems and the Internet and there is every reason to believe that these trends will continue. More broadly, the entire MVPD sector is in a state of rapid transition, with traditional MVPDs faced with consumers cutting the cord and relying on Internet-based services.

gain access to video programming content; competence and/or actual experience in designing, constructing, and/or operating distribution networks (whether physical or virtual); capabilities relating to the marketing and promotion of new digital or entertainment services; and familiarity with government permitting processes and other requirements. Such capabilities are especially useful for entry into the facilities-based MVPD business. As detailed below, start-up firms have consistently and successfully entered into the provision of the relevant services, and such entry is likely to continue in the future.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

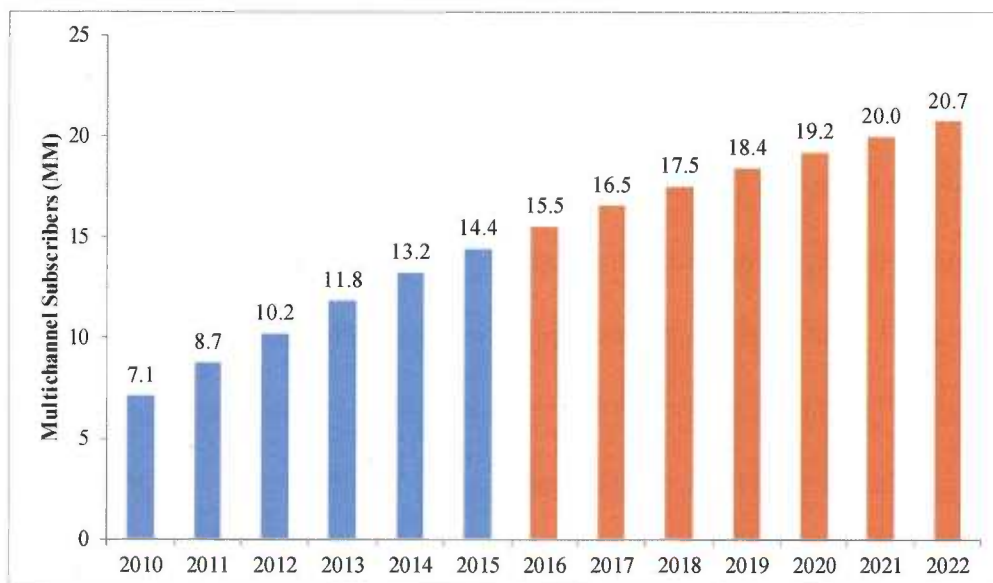
[END HIGHLY CONFIDENTIAL INFORMATION] Charter's further assessment of the factors affecting entry into the MVPD and OVD sectors follows.

Entry into the MVPD Sector

Entry into the provision of MVPD services has occurred both as the result of existing providers expanding into new service territories—*e.g.*, by telcos such as AT&T, CenturyLink, and Frontier—and with the entry of new fiber companies—such as Google and the municipal utilities. Expansion and entry into MVPD services from these sectors is likely to continue. The primary source of entry and expansion into the MVPD business in the immediate future is likely to be through the continued expansion of the copper and fiber telco infrastructure as well as fiber-based entrants into new service areas. These firms compete directly with cable MVPDs by offering bundles of video, broadband and (with some exceptions, notably Google) voice services. For telcos, offering MVPD service goes hand-in-hand with upgrading legacy copper network infrastructures to fiber to the node (“FTTN”) or fiber to the premises (“FTTP”) architectures. Google and the municipalities, among others, are deploying new FTTP networks from scratch.

As shown in the chart below, in the period 2010-2015, the number of telco MVPD subscribers more than doubled, from 7.1 million to 14.4 million, increasing at a compound annual growth rate of 15%.

Telco Multichannel Subscribers (2010-2022)⁹



SNL Kagan estimates that the number of telco MVPD subscribers will increase from 13.2 million in 2014 to 20.7 million in 2022.¹⁰

Based on current rollouts and announced plans, entry by telcos and fiber companies into new geographic markets is certain to continue. For example:

CenturyLink, Inc. began offering its own MVPD service (“Prism TV”) in select territories commencing in 2010¹¹ and has indicated its intention to expand these offerings. In its Q2 2015 Earnings Call, CenturyLink indicated that it had expanded service into Portland, Salt Lake City, and Minneapolis, entering the quarter with over

⁹ Source: *U.S. Multichannel Industry Benchmarks*, SNL KAGAN (2015). Note: 2016-2022 are forecasts.

¹⁰ See *U.S. Multichannel Industry Benchmarks*, SNL KAGAN (2015).

¹¹ See Exhibit 4-1.

2.6 million addressable households, with plans to reach more than 2.8 million homes by year-end 2015.¹² CenturyLink's Prism TV offers over 200 HD channels, Wireless Set-Top Box, Whole-Home DVR, and Prism On The Go.

Frontier Communications also entered the MVPD business by acquiring Verizon's fiber optic video business ("FiOS") from Verizon in 2010¹³ in Indiana, Oregon, and Washington. Frontier recently expanded its footprint with the acquisition of AT&T's U-verse video and satellite TV operations in Connecticut in 2014¹⁴ and is in the process of acquiring additional Verizon FiOS businesses in California, Florida, and Texas.¹⁵ It has announced that it plans to expand the existing FiOS footprint in those states.¹⁶ Frontier has also deployed 1 Gbps FTTP infrastructures in Illinois, Indiana, North Carolina, Oregon, South Carolina, and Washington.¹⁷ According to Frontier, its MVPD service currently offers up to 800 channels, whole home DVR, and TV

¹² *CenturyLink Inc., Q2 2015 Earnings Call*, THE STREET (Aug. 5, 2015), Transcript, p. 5, available at <http://www.thestreet.com/story/13247405/2/centurylink-ctl-earnings-report-q2-2015-conference-call-transcript.html> ("CTL Q2 2015 call").

¹³ See *Frontier Communications Form 10-K* (Feb. 25, 2011), available at <http://www.sec.gov/Archives/edgar/data/-20520/000002052011000010/form10k.htm>.

¹⁴ See *Frontier Communications Completes Acquisition of AT&T Connecticut's Wireline, Broadband and Video Operations*, FRONTIER COMMUNICATIONS (Oct. 24, 2014), available at <http://investor.frontier.com/release-detail.cfm?ReleaseID=878068>.

¹⁵ See Sean Buckley, *Frontier Acquires Verizon Wireline Assets in 3 States for \$10.5B*, FIERCE TELECOM (Feb. 5, 2015), available at <http://www.fiercetelecom.com/story/frontier-acquires-verizon-wireline-assets-three-states-105b/2015-02-05>.

¹⁶ See Sean Buckley, *McCarthy: Frontier Will Expand FiOS in Markets It Purchased from Verizon*, FIERCE TELECOM (May 22, 2015), available at <http://www.fiercetelecom.com/story/mccarthy-frontier-will-expand-fios-markets-it-purchased-verizon/2015-05-22>.

¹⁷ See Sean Buckley, *Frontier's McCarthy: We Won't Expand U-verse*, FIERCE TELECOM (Feb. 19, 2015), available at <http://www.fiercetelecom.com/story/frontier-advances-broadband-market-share-nearly-all-its-markets/2015-02-19>.

Everywhere.¹⁸

AT&T entered the MVPD business with its U-verse service in 2006.¹⁹ With its acquisition of DirecTV, AT&T now offers virtually ubiquitous MVPD service throughout the U.S. and serves approximately 25.7 million subscribers,²⁰ making it the country's largest MVPD. And, as detailed below in the discussion of Internet access services, AT&T has committed to deploy broadband facilities capable of providing wireline MVPD services to 12.5 million new households. In addition, as the Commission indicated when approving the transaction, the combination of AT&T and DirecTV will generate significant synergies, effectively making the combined firm a more efficient and effective competitor throughout the U.S.²¹

Google, Inc. has begun offering MVPD service in Austin, Kansas City, and Provo, and has announced its intention to expand to up to 34 communities in nine metropolitan areas. As detailed below in the section on Internet access, Google's expansion plans also overlap substantially with New Charter's service territory. Municipal providers are also likely to continue to enter the video programming distribution market. At least 89 communities currently have community-operated

¹⁸ See *Channel Lineup*, FRONTIER COMMUNICATIONS, available at <https://frontier.com/helpcenter/Categories/tv/frontier-tv/channel-lineup-residential>.

¹⁹ See Exhibit 4-1.

²⁰ See AT&T, *Description of Transaction, Public Interest Showing, and Related Demonstrations* (June 11, 2014), available at http://licensing.fcc.gov/myibfs/download.do?attachment_key=1050160.

²¹ See AT&T DirecTV Order at ¶ 3, available at http://about.att.com/story/att_completes_acquisition_of_directv.html (“Our record supports the Applicants’ claim that the newly combined entity will be a more effective multichannel video programming distributor (“MVPD”) competitor, offering consumers greater choice at lower prices.”).

FOTP networks and 76 operate community cable networks.²²

Charter also believes entry from new facilities-based MVPDs is likely. For example, Verizon has announced plans to deploy a “mobile first” OTT service “optimized for Verizon’s mobile network” in the third quarter of 2015.²³ Called “Go90,” the basic service will be a free ad-supported service that will include a mix of live events, prime-time television and original web series. Rather than offering the full range of an entire network, Verizon intends to include popular shows from Comedy Central, Food Network, ESPN, NFL Network and Discovery, as well as online series from AwesomenessTV, Vice, Tastemade and Machinima.²⁴ The service will be available to all users, regardless of whether or not they are Verizon customers.

Verizon’s decision to offer a mobile OTT service is consistent with ongoing changes in video consumption, particularly among Millennials: mobile video’s share of audience viewing has expanded rapidly over the past three years. According to a Verizon executive, 70% of Millennials view on mobile first.²⁵ According to a report conducted by Ooyala, as shown in the chart below, smartphone and tablet share of video plays increased from 7% in the fourth quarter of 2012 to 34% in the fourth quarter of 2014. SNL Kagan notes that it is possible that mobile viewing will become the primary mode of consuming online video in 2015.²⁶ The speed at

²² See Community Network Map, INSTITUTE OF LOCAL SELF-RELIANCE (updated Jan. 2015), available at <http://muninetworks.org/communitymap>.

²³ See Jeff Baumgartner, *Verizon’s Mobile Video Optimized for Its Network*, MULTICHANNEL NEWS (June 23, 2015), available at <http://www.multichannel.com/news/next-tv/verizon-s-mobile-video-optimized-its-network/391608>.

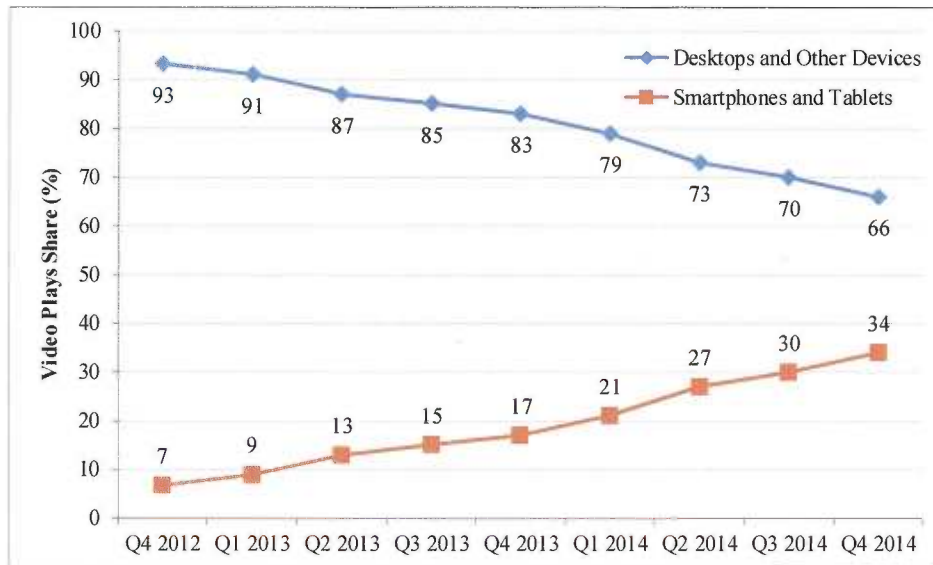
²⁴ Emily Steel, *Verizon to Offer Free Mobile TV Service, Hoping to Draw Millennials*, N.Y. TIMES (Sept. 8, 2015), available at http://www.nytimes.com/2015/09/08/business/media/verizon-to-offer-free-mobile-tv-with-an-eye-on-millennials.html?_r=0.

²⁵ *Id.*

²⁶ See Seth Shafer, *Mobile Video Viewing Rises, Could Hit 50% of Video Plays in 2015*, SNL KAGAN (Apr. 8, 2015).

which mobile data is transmitted is increasing at the same time as customer habits are changing, making small mobile screens highly valued by consumers. As a result, wireless MVPDs will also likely emerge and expand.

Mobile Device Share of Total Video Plays (Q4 2012 – Q4 2014)²⁷



OVD

Since Netflix launched its digital video service in 2007, online video distribution has been one of the most successful and rapidly growing sectors of the Internet ecosystem. The OVD industry continues to grow and evolve, and video content available on the Internet has proliferated from numerous sources.²⁸ As the FCC noted in a recent report, the OVD industry

²⁷ Source: SNL KAGAN, *citing* Ooyala Global Video Index Reports.

²⁸ See *In re Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming (Sixteenth Video Competition Report)*, 28 FCC Rcd. 10496 ¶ 216 & n.795 (2015), available at <https://www.fcc.gov/-document/fcc-adopts-16th-video-competition-report> (noting that “[d]ue to the large number of OVD players, a comprehensive review of all of them is beyond the scope of this Report”). For its Q1 2014 Video Benchmark Report, Adobe analyzed more than 1,300 media and entertainment sites, including those offered exclusively to MVPD subscribers and those available to non-MVPD subscribers. Press Release, Adobe Systems Inc., *Adobe Report Shows Online TV Consumption at All-Time High, Up Nearly 250 Percent* (June 4, 2014), available at <http://www.adobe.com/news-room/pressreleases/201406/060414AdobeVideoBenchmark.html>.

continues to innovate, and “no single business strategy has emerged as the dominant model.”²⁹

OVDs use various business strategies for offering access to content, including free access supported by advertising, subscription services (both with and without advertising), or on-demand purchases or rentals, with some OVDs offering more than one option.³⁰

The largest OVD, Netflix, relies on a subscriber-based business model. As stated in its investor relations materials, Netflix is a flat-fee unlimited viewing commercial-free supplier of movies and TV series with unlimited viewing on any Internet-connected screen.³¹ Netflix now has over 42 million U.S. subscribers (over 62 million subscribers worldwide), representing more than half of all broadband Internet customers in the U.S.³² Netflix accounted for approximately 36.5% of all peak-period Internet download traffic in North America as of May 2015.³³

Netflix’s investor relations materials further lay out Netflix’s content strategy. First, it seeks to enter into multi-year exclusive SVOD licenses. Second, since 2013, Netflix has been creating original content that is exclusively for Netflix. Netflix believes it has “a major advantage over [its] linear competitors when it comes to launching a series or a film. . . . We are making great headway with our slate of original series. Any linear network would be proud to show them. Our success is due in part to great creative execution by our team as well as the power of our

²⁹ See *Sixteenth Video Competition Report* ¶ 274.

³⁰ See *id.* ¶ 275.

³¹ <http://ir.netflix.com/long-term-view.cfm>. (“*Netflix Investor Materials*”).

³² Jeff John Roberts, *Netflix Streams Its Way to Another Blockbuster Quarter, Share Price Soars*, FORTUNE (July 15, 2015), available at <http://fortune.com/2015/07/15/netflix-q2-earnings-2015/>.

³³ *Global Internet Phenomena Report: North America and Latin America*, sandvine.com, 1 (May 25, 2015), available at <https://www.sandvine.com/downloads/general/global-internet-phenomena/2015/global-internet-phenomena-report-latin-america-and-north-america.pdf> (“*Sandvine Report*”). Four other OVD services (YouTube, iTunes, Amazon Video, and Hulu) were listed among the top 10 applications driving peak-period download traffic in North America as of May 2015. See *Sandvine Report* at 4.

large on-demand platform.”³⁴ Among the Netflix-created TV shows that have been nominated for Emmy Awards are *House of Cards*, *Orange Is the New Black*, *Unbreakable Kimmy Schmidt*, *Grace and Frankie*, *Daredevil*, *Virunga*, and *Hot Girls Wanted*.³⁵ Netflix has opted to drop many studio releases from video programmers such as Epix and to focus instead on original programming for which it can control the distribution.³⁶ In October 2015, Netflix announced it was increasing its monthly subscription fee by 11%, from \$8.99 to \$9.99.

Hulu,³⁷ Sony’s Crackle, and portal sites from the broadcast and cable networks also operate established OVDs, relying entirely or in part on advertiser support in place of

³⁴ *Netflix Investor Materials*.

³⁵ Nick Pino, *Emmy Awards 2015: All the Nominees from Netflix and Amazon*, TECHRADAR (July 30, 2015), available at <http://www.techradar.com/us/news/television/emmy-awards-2015-every-show-nominated-from-netflix-and-amazon-1300710>.

³⁶ Dana Blackenhorn, *Netflix or Amazon, HBO or Blockbuster*, SEEKING ALPHA (Sept. 4, 2015), available at <http://seekingalpha.com/article/3490526-netflix-or-amazon-hbo-or-blockbuster>.

³⁷ Hulu describes itself as “the only streaming subscription service that offers current season content from 5 of the 6 largest U.S. broadcast networks [e.g., everyone except CBS]. . . . Hulu is an ad supported subscription service that offers current and back season shows from ABA, Comedy Central, The CW, Fox, NBC, MTV, and Univision to connected devices for \$7.99 monthly. . . . More than 1000 advertisers have leveraged the Hulu service since launch in 2009, including Johnson & Johnson, McDonald’s Visa, Pepsi, Nestle, Microsoft, GEICO, Target, Verizon Wireless, Sprint, Purina, Nissan, Toyota, Honda, State Farm, Allstate, Unilever and Procter & Gamble.” See <http://www.hulu.com/about>. On September 2, 2015, Hulu announced it would offer subscribers as well the option to stream TV shows and movies with no advertising for \$11.99 a month. The Company indicated that it would continue to offer its ad-supported model as well, thereby giving customers a choice. Hulu offers subscribers original series and movies, including pay-TV channel Epix, as well as in-season episodes of such shows as Fox’s “Empire.” According to press reports, “Hulu secured the rights for almost all of its programming to run ad-free, aside from seven shows: ‘*New Girl*,’ ‘*Scandal*,’ ‘*How to Get Away with Murder*,’ ‘*Grey’s Anatomy*,’ ‘*Once Upon a Time*,’ ‘*Agents of Shield*,’ and ‘*Grimm*.’ These shows will carry a 15-second commercial before they start and a 30-second ad at the end.” Mike Shields and Sarah Rabil, *Hulu Offers Ad-Free Streaming Option for \$11.99 a Month*, Wall St. J. (Sept. 2, 2015), available at <http://blogs.wsj.com/cmo/2015/09/02/hulu-offers-ad-free-streaming-option-for-11-99-a-month/>. As of the first quarter of 2015, Hulu reportedly had about nine million subscribers.

subscription revenue.³⁸ Additionally, Amazon,³⁹ Google, and Apple each offer their own robust OVD services, and Dish Network launched its Sling TV OVD service in the first quarter of 2015.⁴⁰

Future entry into the OVD sector is likely to come from several types of companies, ranging from start-ups to the largest and most sophisticated media and communications firms in the world. The most likely sources of entry include the following:

Start-up OVDs

Several successful OVDs launched their OVD services as start-up companies. YouTube, for example, was founded by three former PayPal employees in 2005 and operated as a stand-alone firm for nearly two years before being acquired by Google in 2006 for \$1.65 billion.⁴¹

By way of illustration only, other recently launched OVD start-ups include:

CuriosityStream, an ad-free, subscription model, online video on demand (“VOD”) service that exclusively delivers nonfiction documentaries and series about science, technology, history and nature. The service launched in March 2015, and is led by John Hendricks, the founder of the Discovery Channel (who retired as the Chairman of Discovery Communications in May 2014), Mr. Hendricks’ daughter Elizabeth Hendricks North, Steve Burns (who formerly headed programming for National

³⁸ See *Sixteenth Video Competition Report* ¶ 282.

³⁹ Amazon also has been at the forefront of developing content for its OVD services. One of its series, *Transparent*, is an Emmy Award nominee this year.

⁴⁰ Press Release, DISH, *Sling TV to Launch Live, Over-the-Top Service for \$20 Per Month; Watch on TVs, Tablets, Computers, Smartphones, Game Consoles* (Jan. 5, 2015), available at <http://about.dish.com/press-release/products-and-services/sling-tv-launch-live-over-top-service-20-month-watch-tvs-tablets>.

⁴¹ See Megan Rose Dickey, *The 22 Key Turning Points in the History of YouTube*, BUSINESS INSIDER (Feb. 15, 2013), available at <http://www.businessinsider.com/key-turning-points-history-of-youtube-2013-2?op=1>.

Geographic Channel and Science Channel), and Pete North (co-founder of digital management consultancy True North). Applications for iOS and Android devices were released on March 18, 2015 and a Roku channel, Chromecast support and a 4K subscription plan are scheduled to be available by the end of 2015.⁴² The service will start out with 800 titles, about half of which will be short-form programs, roughly eight minutes long. CuriosityStream's founder indicates that the company will not be spending billions on content: "We see our content investment being in the tens of millions"; nonfiction television is generally cheaper than scripted programming. The company reports that it will co-produce some of its original content, working with producers such as Britain's BBC and Japan's NHK.

Pluto TV is a video streaming service started in 2013 that offers a linear catalog of aggregated web content in the format of themed channels. It offers free ad-supported, continuous programming 24/7 on over 100 channels, and through a recent deal with Hulu it will be streaming more mainstream content from major networks.⁴³ Still an early stage start-up, Pluto TV is not yet disclosing its viewership. However, it has successfully raised \$13.5 million in funding from U.S. Venture Partners and Sky.⁴⁴

SnagFilms is a free ad-supported VOD service offering a large library of documentaries and movies. SnagFilms was founded in 2008 and has continued to

⁴² Wayne Friedman, *Discovery Channel Founder to Launch Ad-Free SVOD Service*, MEDIAPOST (June 17, 2015), available at <http://www.mediapost.com/publications/article/241881/discovery-channel-founder-to-launch-ad-free-svod-s.html>; Keach Hagey, *Discovery Channel Founder Jumps Into Video Stream*, WALL ST. J. (Jan. 14, 2015), available at <http://www.wsj.com/articles/discovery-channel-founder-jumps-into-video-stream-1421268320>.

⁴³ Sarah Perez, *Pluto TV, An Online Video Service Targeting Cord Cutters, Will Stream Hulu*, TECHCRUNCH (July 1, 2015), available at <http://techcrunch.com/2015/07/01/pluto-tv-an-online-video-service-targeting-cord-cutters-will-soon-stream-hulu/>.

⁴⁴ *Id.*; see also <https://www.crunchbase.com/organization/pluto-tv>.

grow, receiving \$29.5 million in funding since its inception.⁴⁵ As of 2013, SnagFilms had a viewership of approximately four million visitors a month.⁴⁶ SnagFilms also owns, among other things, the comedy website Thundershots. SnagFilms.com was a Webby finalist as 2014's top entertainment site.

Vessel is a new subscription video service that launched publicly on March 24, 2015 and was founded by former Hulu CEO Jason Kilar and former Hulu Chief Technology Officer Richard Tom.⁴⁷ The service offers a variety of high-quality short-form videos, spanning gaming, music, sports, beauty, lifestyle, comedy, fashion, science, tech, design, etc., in one curated experience. Vessel aims to be an alternative to YouTube, distinguishing itself from the competition by offering more lucrative revenue deals to content creators in return for certain exclusivity rights.⁴⁸ Vessel has not released user figures, but TechCrunch notes that the start-up has received over \$132 million in venture funding and that "80% of its active subscribers are watching ... early access videos on a weekly basis."⁴⁹ Vessel currently offers its service for \$2.99 per month.⁵⁰ The product is "mobile-first."

Viki offers both free ad-supported and ad-free/HD on-demand streaming video of TV shows, movie, and music video. Founded in 2007, the company raised \$20 million

⁴⁵ *SnagFilms*, CRUNCHBASE, available at <https://www.crunchbase.com/organization/snagfilms>.

⁴⁶ *SnagFilms Opens Social Video Platform With More Free Films to the Public*, PR NEWswire (June 24, 2013), available at <http://www.prnewswire.com/news-releases/snagfilms-opens-social-video-platform-with-more-free-films-to-the-public-212742051.html>.

⁴⁷ See Sarah Buhr, *Former Hulu CEO Jason Kilar's Vessel Launches To The Public*, TECHCRUNCH (Mar. 24, 2015), available at <http://techcrunch.com/2015/03/24/former-hulu-ceo-jason-kilars-vessel-launches-to-the-public/>.

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

from Greylock Partners, Andreessen Horowitz, and BBC Worldwide in October 2011.⁵¹ In September 2013, Rakuten, a Japanese e-commerce company, acquired the company. The company uses its own proprietary subtitling technology to provide subtitles in dozens of languages for International content from a variety of countries, including Korea, Turkey, and Japan. The company receives original content from a variety of companies, including the BBC. In January 2011, Viki won the “Crunchie” award for the best international start-up company. In December 2013, Google announced that Viki would launch on its Chromecast. In 2014, Viki reported having over 35 million monthly active users and 25 million mobile users.⁵²

As recognized in the Netflix investor relations materials, “Because the entertainment market is broad, multiple firms can be successful. For example, HBO is now growing faster than in years past, while our business is also expanding. Many people will subscribe to both HBO and Netflix since we have different exclusive content.”⁵³ Netflix forecasts expansion of Internet TV and “growth for many Internet TV services.” Given the low barriers to entry for distribution of video on the Internet and the continuing, rapid innovation occurring in technologies and business models,⁵⁴ start-up OVDs are likely to continue to emerge on an ongoing basis.

⁵¹ Karen Swisher, *Exclusive: Japan’s Rakuten Acquires Viki Video Site for \$200 Million* (Sept. 1, 2013), ALL THINGS D, available at <http://allthingsd.com/20130901/exclusive-japans-rakuten-acquires-viki-video-site-for-200-million/>.

⁵² David Corbin, *Razmig Hovaghimian, founder of Viki, steps down as CEO, to lead Rakuten’s global video strategy* (Jan. 15, 2015), TECHINASIA, available at <https://www.techinasia.com/razmig-hovaghimian-founder-of-viki-out-as-ceo/>.

⁵³ Netflix Investor Materials.

⁵⁴ See *Studios Network Launches OTT Revenue-Sharing Content Distribution Platform: “Instant Media Empire” Technology Designed by Television Industry Insiders*, WDRB.COM (Aug. 20, 2015), available at <http://www.wdrb.com/story/29839864/studios-network-launches-ott-revenue-sharing-content-distribution-platform-instant-media-empire-technology-designed-by-television-industry-insiders>.

Consumer Electronics Manufacturers

Consumer electronics manufacturers are also potential entrants into the provision of OVD services. These firms use OVD services in part to stimulate sales of their consumer electronics or diversify their businesses. Manufacturers may also have strong brand recognition and existing marketing and advertising channels that could provide an advantage in starting a new OVD service. Indeed, several consumer electronics manufacturers have launched OVDs in recent years.

Apple, Inc., for example, primarily sells computers and other devices, and has a customer base of nearly 90 million, making it potentially appealing to content providers.⁵⁵ It also sells video content through its iTunes service, which accounted for 3.65% of all downstream Internet traffic in North America in the first half of 2015.⁵⁶ That service, in turn, drives demand for Apple products, including the Apple TV set-top device. Based on news reports, Apple has held preliminary discussions to explore entering into the original programming business.⁵⁷

Sony Corp. has launched an OVD service over the Internet tied to its PlayStation game consoles and offers a wide variety of television and movie content,⁵⁸ including

⁵⁵ Keach Hagey and Shalini Ramachandran, *Unbundling Pay-TV Brings New Questions*, WALL ST. J. (Mar. 17, 2015), available at <http://www.wsj.com/articles/unbundling-pay-tv-brings-new-questions-1426639589>.

⁵⁶ *Sandvine Report* at 6.

⁵⁷ See Andrew Wallenstein, *Apple Eyes Move Into Original Programming*, VARIETY (Aug. 31, 2015), available at <http://variety.com/2015/digital/news/apple-eyes-move-into-original-programming-exclusive-120158202/>; Ryan Faughnder, *Apple may be planning move into original video content* L.A. TIMES (Aug. 31, 2015), available at <http://www.latimes.com/business/la-et-0901-apple-programming-20150901-story.html>.

⁵⁸ See <https://www.playstationnetwork.com/video/>.

original video programming.⁵⁹ Its OTT pay-TV service, PlayStation Vue, launched in three Designated Market Areas (“DMAs”) in March 2015, delivering a mix of at least 85 broadcast and cable channels per market.⁶⁰ PlayStation Vue has since expanded to seven DMAs: Chicago, Dallas, Los Angeles, Miami, New York, Philadelphia, and San Francisco.

Similarly, Microsoft offers an OVD service available on Xbox devices, mobile devices, and web browsers.⁶¹ Microsoft Xbox also supports multiple third-party OVD applications, including HBO GO, Netflix, Amazon Instant Video, and several others.

Roku, a privately held manufacturer based in Saratoga, California, is the leading U.S. manufacturer of digital media players that allow video (and audio) to be streamed to televisions over the Internet. Founded in 2002, Roku accounts for more than a third of the U.S. sales of such devices.⁶² In addition to enabling access to third-party aggregators (such as Hulu, Netflix or The Blaze), Roku allows users to create their own channels. As Roku’s website explains, “Roku’s Streaming Player enables content owners to bypass traditional distribution routes and reach viewers and

⁵⁹ *TV Review: Powers*, VARIETY (Mar. 9, 2015), available at <http://variety.com/2015/digital/reviews/tv-review-powers-sony-playstation-1201449272/>.

⁶⁰ *Sony PlayStation Vue Launches in Three Markets*, MULTICHANNEL NEWS (Mar. 18, 2015), available at <http://www.multichannel.com/news/technology/sony-playstation-vue-launches-three-markets/388934>; see <https://www.playstationnetwork.com/vue/plans/>.

⁶¹ See *Sixteenth Video Competition Report* ¶ 223. With the launch of Windows 10, Microsoft rebranded its OTT offering from Xbox Video to Microsoft Movies and TV, stating that “[o]ur new name speaks to the breadth of Microsoft devices that our customers use to watch movies & TV shows – from PCs, Tablets and Phones, to watching videos on their Xbox consoles or on the Web.” See <http://www.xbox.com/en-US/video>.

⁶² See *Amazon, Apple, Google, and Roku dominate streaming media device market with 86% of sales*, PARKS ASSOCIATES (Aug. 20, 2015), available at <https://www.parksassociates.com/blog/article/pr-aug2015-steaming-media-landscape>.

consumers directly.” There are currently more than 2000 channels available in the Roku Channel Store.⁶³

Other mobile device manufacturers are also candidates. For example, in March 2015, Samsung rolled out an OTT service, Moony, in Brazil.⁶⁴

Given the advantages that consumer electronics manufacturers can capitalize on and the success of OVDs launched by consumer electronics companies to date, other consumer electronics manufacturers may decide to launch their own OVD services and/or expand or evolve further their OVD services.

Video Programming Providers

Video content providers can create an OVD service by allowing online access to their content, either through their own websites or in partnership with existing online video services. By doing so, they have the opportunity to distribute content directly to consumers, bypassing traditional distribution platforms.⁶⁵ For example, in October 2014, CBS launched its online subscription service, CBS All Access.⁶⁶ In the fall of 2014, HBO began making its programming available on demand over the Internet using an app called “HBO Go,” and, more recently, “HBO Now,” which lets the consumer access HBO programs on demand on a laptop or desktop computer. A substantial number of other studios, broadcast networks, sports leagues, and programming networks offer content on the Internet or on mobile applications, including

⁶³ See *Developing on Roku* (visited Sept. 9, 2015), available at <https://developer.roku.com/home>.

⁶⁴ See Jim O’Neill, *Samsung deploys OTT play in Brazil with eye on Latin American expansion*, VIDEOMIND (Mar. 3, 2015), available at <http://www.ooyala.com/videomind/blog/samsung-deploys-ott-play-brazil-eye-latin-american-expansion>.

⁶⁵ See *Sixteenth Video Competition Report* ¶¶ 240, 241, 244.

⁶⁶ *Id.* ¶ 270.

Sony, Warner Brothers, Paramount, ABC, CBS, FOX, NBC, the NFL, NHL, NBA, MLB, Showtime, among others.

In addition, video programming providers acquire start-up OVDs to jump start their entry into OVD. For instance, Feeln (f/k/a “SpiritClip”), is a streaming service that “brings you heartfelt stories of love and togetherness, anytime, anywhere.”⁶⁷ It was founded in 2007 by Academy Award-winning producer Rob Fried, and acquired by Hallmark Cards, which owns a majority of the shares of Crown Media Holdings, which in turn owns the Hallmark Channel, in 2012. Feeln’s content includes the Hallmark Hall of Fame’s features, as well as other Hollywood movies, TV series, and originals.⁶⁸

Charter expects that video content providers will continue to explore ways to expand distribution of their content via OVDs.

Internet Search Engines, Portals, and Social Networking Sites

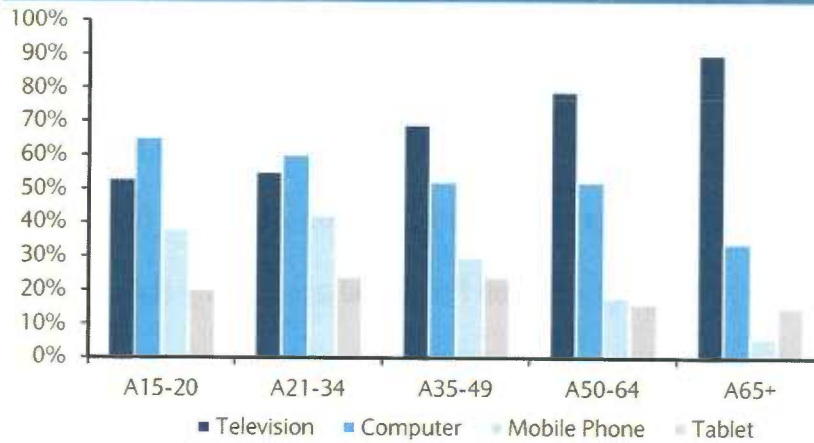
Consumer viewing habits are shifting. According to one recent study, a higher percentage of adults (defined as ages 15-34) watch video programming at home on computers:

⁶⁷ See <https://www.feeln.com/about>.

⁶⁸ Paul Sawers, *SpiritClips from Hallmark is like Netflix for families* (July 17, 2013), THE NEXT WEB, available at <http://thenextweb.com/apps/2013/07/17/spiritclips-from-hallmark-is-like-netflix-for-families/>.

Higher percentage of adults 15-34 watch video programming in-home on computers than television

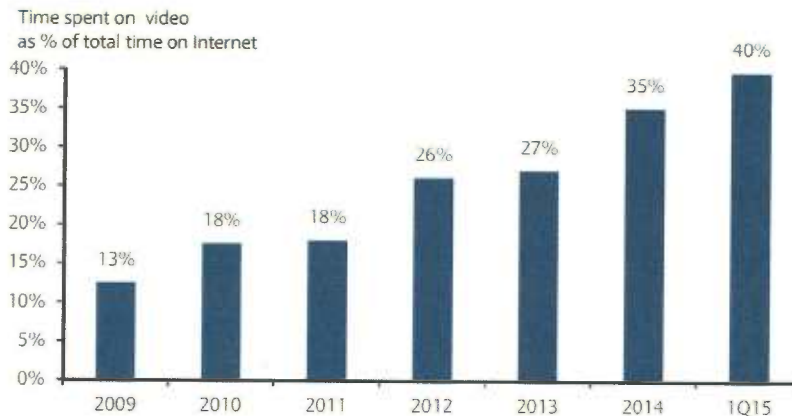
69



At the same time, an increasing proportion of time spent on Internet is on videos:

Increasing proportion of time spent on internet is on video

70



One impact of this trend is that Internet-based companies, such as Internet search engines, portals, and social networking sites, are also candidates to enter the OVD business. OVD is complementary to these sites' existing users: online video can be used to attract, retain, and more effectively monetize website users. Moreover, Internet-based companies are able to use

⁶⁹ BARCLAYS, *Understanding the Media Ecosystem's Evolution* (Aug. 25, 2015), at p. 7.

⁷⁰ *Id.* at p. 28. Source: Nielsen, eMarketer, Sandvine Global Internet Phenomena Report 1H15, Barclays Research.

existing servers, network infrastructure, and commercial relationships to facilitate storage and distribution of bandwidth-intensive high-definition online video.

Some existing search engines and social networking sites already distribute video content online. Google, which already owns the largest provider of online video in the world, YouTube,⁷¹ launched an Internet-based entertainment store, Google Play, in March 2012, which includes thousands of episodes of television programs, including content from NBCUniversal, ABC Studios, Sony Pictures, and others.⁷² In addition, YouTube has recently hired MTV programming chief Susanne Daniels to head its original content efforts. New search engines, Internet portals, and social networking sites are likely to emerge that will also launch OVDs to take advantage of the popularity of online video programming.

Retail Companies

Online and brick-and-mortar retailers also are current and potential entrants into OVD services. Retail companies can use competitive advantages, such as an established Internet presence, customer bases, and existing retail relationships with content providers and electronics manufacturers to successfully launch a new OVD service. Large retail companies may also have easy access to capital to finance such a venture.

Amazon, for example, the leading online retail company, has a growing online video business. It appears that Amazon intends to use its video business as a way to continue to sell its Prime subscriptions and to grow its overall retail business.⁷³ Amazon currently offers streaming

⁷¹ See *comScore Releases June 2015 U.S. Desktop Online Video Rankings* (July 24, 2014), available at <http://www.comscore.com/Insights/Market-Rankings/comScore-Releases-June-2015-US-Desktop-Online-Video-Rankings>.

⁷² See *Sixteenth Video Competition Report* ¶ 225.

⁷³ See *Netflix or Amazon, HBO or Blockbuster*, *supra* n. 35; see Emily Steel and Jonathan Mahler, *With Win, Amazon Shakes Up Yet Another Industry*, N.Y. TIMES (Jan. 12, 2015),

and downloadable television programs and movies on a transactional basis through its Amazon Instant Video service and on a subscription basis through its Prime Instant Video Service.

Amazon owns the Internet Movie Database (“IMDb”), which provides links to individuals using IMDb for movies available on Amazon’s streaming service, Amazon Instant Video. Amazon also has been investing in video content, including original content through its Amazon Studios division. Started in late 2010, scripts for television and film are submitted through the web to Amazon for consideration. Its first pilot season was in spring of 2013. Some of the pilots have become full seasons. In October 2014, for instance, Amazon signed up two pilots for full season runs—*Hand of God* and *Red Oaks*.⁷⁴ To date, Amazon’s most successful original series include *Alpha House*, *Transparent* (which has won a Golden Globe Award⁷⁵ and has been nominated for an Emmy), *Tumble Leaf*, and *Bosch*, which is up for an Emmy Award this year. Amazon also has entered into a series of agreements with HBO and other programmers for prior seasons of popular TV shows.

Amazon recently launched the Amazon Fire TV set-top box, which includes multiple OVD applications in addition to Amazon Instant Video, and also sells a tablet device (the Kindle Fire) that allows for mobile viewing of HD video (either streamed in real time or downloaded to the device).⁷⁶ The *Sandvine Report* notes that Amazon Instant Video accounts for 1.97% of peak

available at http://www.nytimes.com/2015/01/13/business/media/award-for-transparent-vindicates-amazons-tv-executives.html?_r=0.

⁷⁴ Samantha Bookman, *Content: Amazon Pilot Season, Reaps Benefits, as Sandler Signs on at Netflix*, FIERCEONLINEVIDEO (Oct. 7, 2014), available at <http://www.fierceonlinevideo.com/story/content-amazon-pilot-season-reaps-benefits-sandler-signs-netflix/2014-10-07>.

⁷⁵ See Emily Steel and Jonathan Mahler, *supra* n. 73. Amazon became the first digital streaming service to win a Global Globe for best TV series when it got this award.

⁷⁶ *Id.* ¶ 222.

period downstream traffic in North America and finds that Amazon “established themselves [sic] as the leading paid OTT alternative video service in North America.”⁷⁷

Similarly, Wal-Mart, primarily a brick-and-mortar consumer goods retailer, owns the OVD Vudu and makes Vudu available to electronics manufacturers to integrate into their products. Best Buy, with its nearly 2,000 retail locations, also has an OVD service, CinemaNow, which allows customers to rent or purchase TV or movie programming.⁷⁸

MVPDs

Cable operators, telcos, and direct broadcast satellite (“DBS”) companies can each offer their own OVD services.⁷⁹ MVPDs already maintain a presence on the Internet, and many already provide interactive online portals that allow their subscribers to view programming over-the-top or to schedule programs for recording on a digital video recorder (“DVR”), among other functions.

Indeed, several MVPDs, including Cablevision and Verizon, already have begun or announced plans to offer such services. DirecTV (now AT&T) has been building an OTT platform, and using current contracts with programmers to provide content, including NFL Sunday Ticket, to help propel it to becoming a major streaming video provider. Dish Network announced at the Consumer Electronics Show on January 3, 2015 its launch of Sling TV, a web-based live and on-demand video offering with 19 channels, including ESPN.⁸⁰ Comcast

⁷⁷ *Sandvine Report* at 1.

⁷⁸ See <https://us.cinemanow.com/>.

⁷⁹ See *Sixteenth Video Competition Report* ¶¶ 241, 270 (see, e.g., DirecTV’s NFL Sunday Ticket and Dish Network’s Sling TV).

⁸⁰ Emily Steel, *Dish Network Unveils Sling TV, a Streaming Service to Rival Cable (and It Has ESPN)*, N.Y. TIMES (Jan. 5, 2015), available at http://www.nytimes.com/2015/01/06/business/media/dish-network-announces-web-based-pay-tv-offering.html?_r=0.

announced in July 2015 that it will launch a \$15-per-month pay-TV service called “Stream,” with an initial rollout in Boston and ubiquitous availability across Comcast’s footprint by 2016.⁸¹ Comcast’s “Stream” reportedly will offer about a dozen channels, including HBO, on-demand content, and a cloud-based recording system. CenturyLink recently announced that it is developing an OTT offering “that will provide a robust competitive video offering for customers both within and outside [its] ... Prism TV market footprint.”⁸² Earlier this year, Verizon purchased AOL, the third largest distributor of online video content, just behind Google and Facebook.⁸³ AOL On produces an extensive library of online video content and boasts more than one billion video views per month.⁸⁴ AOL’s content reportedly will play an important role in Verizon’s soon-to-launch mobile-first OTT service.⁸⁵ Most recently, DirecTV has announced it will make its Sunday Ticket NFL package available as a stand-alone streaming service to apartment dwellers and others unable to receive DirecTV over satellite.⁸⁶ These recent trends

⁸¹ *Comcast to Offer a New Streaming TV Series*, L.A. Times (Jul. 13, 2015) available at <http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-comcast-tv-streaming-service-20150713-story.html>.

⁸² CTL Q2 2015 call.

⁸³ See Ken Wisnefski, *How AOL Became So Dominant in Online Video and Why Verizon Cares*, THE STREET (May 13, 2015), available at <http://www.thestreet.com/story/13149009/1/how-aol-became-so-dominant-in-online-video-and-why-verizon-cares.html>; see also *Sixteenth Video Competition Report* ¶ 305.

⁸⁴ See Mark Sweney, *Guardian signs global video deal with AOL On*, THE GUARDIAN (May 26, 2015), available at <http://www.theguardian.com/media/2015/may/26/guardian-signs-global-video-deal-aol-on>; see also Eric Blattberg, *How AOL has quietly become a digital video powerhouse*, DIGIDAY (Sept. 15, 2014), available at <http://digiday.com/publishers/aol-become-digital-video-powerhouse/>.

⁸⁵ See Jeff Baumgartner, *‘Late Summer’ Debut for Verizon’s OTT Service*, MULTICHANNEL NEWS (July 21, 2015), available at <http://www.multichannel.com/news/next-tv/late-summer-launch-verizon-s-mobile-first-service/392368>.

⁸⁶ See Michael Balderston, *DirecTV To Offer NFL Sunday Ticket Live as Standalone OTT*, TV TECHNOLOGY (Aug. 10, 2015), available at <http://www.tvtechnology.com/news/0002/directv-expands-nfl-sunday-ticket-live-streaming-service/276747>.

suggest that MVPDs that do not already offer an OVD service, but possess online programming distribution rights or other complementary inputs, are likely candidates for entry into the provision of OVD service.⁸⁷

Mobile Wireless

As noted above, mobile wireless carriers like Verizon have already entered into video programming distribution, and Charter believes it is likely more will do so. The rapid growth of mobile video viewing leads Charter to believe that further entry and expansion by mobile providers such as AT&T, Sprint, and T-Mobile is likely. Moreover, Wireless Internet Service Providers (“WISPs”) are beginning to compete in urban areas.⁸⁸

Requirements and Time Necessary to Enter Video Programming Distribution

The following is a list of what Charter considers to be key requirements for entry and Charter’s estimates of the approximate times required to meet each requirement.

<u>Requirement</u>	<u>Time Required to Satisfy Requirement</u>
Programming	<ul style="list-style-type: none">• <i>De minimis</i> (particularly for firms such as HBO, which already own programming)• 6-12 months (for a firm seeking to license programming from content owners)• 12-24 months (for a firm wishing to generate its own traditional video programming content)

⁸⁷ See *Charter MVPD Classification Comments* at 2: “As rising consumer broadband speeds make online video an increasingly attractive option to both distributors and consumers, traditional video providers are likely in coming years to avail themselves of the opportunity to offer greater programming options online. Traditional providers already compete with OVD services today, but in the near future, their over-the-top services will offer functionally identical services as today’s OVD providers and compete head-to-head for the same subscribers.”

⁸⁸ See, e.g., Eric Geier, *Meet WISP, the Wireless Future of the Internet Service*, PC WORLD (Dec. 2, 2013), available at <http://www.pcworld.com/article/2067283/meet-wisp-the-wireless-future-of-internet-service.html>.

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<u>Requirement</u>	<u>Time Required to Satisfy Requirement</u>
Distribution System	<ul style="list-style-type: none">• <i>De minimis</i> (for firms utilizing online distribution)• 6-12 months (for firms such as telcos and mobile wireless providers which already possess a distribution network but may require technology modifications or upgrades)• 12-24 months (for firms such as Google Fiber which choose to build a distribution network from scratch)
Marketing and Administration	<ul style="list-style-type: none">• <i>De minimis</i> for existing firms• 3-6 months for online distribution• 6-12 months for firms utilizing traditional MVPD billing systems
Governmental Approvals	<ul style="list-style-type: none">• <i>De minimis</i>, particularly for online distribution• Charter does not track government permitting requirements for entry into video programming distribution by other types of firms, but estimates that obtaining permits for deployment of a new wireline MVPD distribution infrastructure may take 6-12 months, depending on the jurisdiction

Video Programming

The number of video programming networks and the diversity of programming available have changed significantly over the last two decades. Referring only to cable television networks, the U.S. Court of Appeals for the D.C. Circuit observed in 2009 that “the number of cable networks has increased by almost 500% since 1992 and has grown at an ever faster rate since 2000.”⁸⁹ Since that decision, the number of networks, the number of companies providing video programming and the volume of video programming content created have continued to grow exponentially. Firms that have begun to provide new video programming that will be

⁸⁹ *Comcast Corp. v. FCC*, 579 F.3d 1, 8 (D.C. Cir. 2009).

distributed through MVPD and OVDs include not only existing cable network providers, but also movie studios, television production companies, sports teams and associations, and independent content producers. Moreover, new video programming distributed online or by VOD services continues to emerge.

Based on recent trends and on the number of entities that have announced their interest in creating new video programming, and the increasing number of available outlets for video programming, Charter believes that new video programmers will continue to emerge and existing programmers will have significant expansion opportunities, as discussed further below.⁹⁰

The Continuing Evolution of Video Programming

New video programming will be launched to address the changing needs of diverse audiences, evolving interests of the viewing public, and new technologies. As the demographic composition of the U.S. shifts, new video programming will emerge to meet the needs of diverse audiences. Over the past 10 years, for example, a number of Spanish-language cable television networks have emerged to satisfy the interests of the United States' growing Hispanic population. As various ethnic populations continue to grow, video programming options, including new video programming networks, will emerge to meet demands for language- and culture-specific content. Similarly, new video programming will emerge in response to viewers'

⁹⁰ With the transition from analog to all-digital service, Charter was able to expand the number of channels it offers to 200. Charter has been particularly interested in providing its subscribers with additional Hispanic and other foreign language and ethnic offerings. Charter currently offers over 100 multicultural networks in 10 different languages (Armenian, Chinese, Spanish, French, Hindi, Japanese, Korean, Tagalog (Filipino), Portuguese, and Russian). In Spanish alone, Charter's offer reaches 70 networks. Charter is the only major MVPD who offers the majority of its multicultural networks in HD at what Charter believes are the most competitive prices in the industry. In addition to its multicultural offer, Charter offers unique Asian American, Latin American, and Native American content. Charter's initiatives have provided (and will continue to provide) opportunities for new channels to be launched.

evolving interests. It is noteworthy, for example, that the YouTube personality with the most subscribers is a 24-year-old Swede named Felix Kjellberg who posts videos of himself playing video games. Kjellberg reportedly has 23 million subscribers to his YouTube channel.⁹¹

More established video programmers are also expanding their offerings, including taking advantage of new technologies to offer innovative programs. Viacom recently announced plans to launch a children's programming network that allows viewers to indicate preferences and personalize the content aired on the channel.⁹² Other companies also likely will enter the video programming market to take advantage of new opportunities made available by improved technology.

Possible Future Entrants

Existing owners of cable television networks are likely in the future to launch new video programming networks and develop new video programming for distribution in other formats. News Corp., for example, launched two new networks in 2013 (Fox Sports and FXX).⁹³ Other large established cable television networks may also develop and launch new channels to cater to changing preferences of cable television audiences. Existing owners of cable television networks may also develop new video programming specifically for online distribution. By launching an Internet-based video programming network, an existing video programmer can use

⁹¹ See Christopher Zoia, *This Guy Makes Millions Playing Video Games on YouTube*, THE ATLANTIC (Mar. 14, 2014), available at <http://www.theatlantic.com/business/archive/2014/03/this-guy-makes-millions-playing-video-games-on-youtube/284402/>.

⁹² See Amol Sharma, *Viacom to Launch Customized Kids' TV Channel*, WALL ST. J. (Jan. 14, 2014), available at <http://online.high-speed.com/news/articles/SB10001424052702303754404579312904182126302>.

⁹³ Cynthia Littleton, *Congloms Firing Up New Cable Channels as Climate Improves*, VARIETY (Sept. 13, 2013), available at <http://variety.com/2013/tv/news/congloms-firing-up-new-cable-channels-as-climate-improves-1200609613>.

existing production assets to develop content to reach specific audiences and broaden their existing reach. For example, Discovery Communications Inc., which owns a number of cable television networks, recently launched TestTube—a free, online video network targeted at the young male demographic.⁹⁴ Other existing video programming providers could also pursue a similar strategy.

In addition, video programming providers that currently offer only online content might migrate their programming to cable television networks or television VOD services. Some video programming networks that began as VOD-only networks, such as Anime, Fearnert, and Sprout, have used that programming to launch a linear television network. Similarly, funnyordie.com, which began as an online-only viewing service, now distributes content on HBO. The tremendous success of Amazon⁹⁵ and Netflix⁹⁶ in producing original content demonstrates that OTT providers have the capacity successfully to enter the provision of video programming content.

Sports teams and leagues may also be able to leverage their current fan base to create new video programming networks. In recent years, several sports teams and leagues, including several collegiate sports conferences, have launched cable television networks.⁹⁷ In the future, other sports organizations may likewise take advantage of their existing audiences to introduce new video programming networks. Similarly, publishing organizations such as Time Inc., which

⁹⁴ Keach Hagey, *Discovery to Launch 'TestTube' Online Video Network*, WALL ST. J. (May 23, 2013), available at <http://online.high-speed.com/news/articles/SB10001424127887323336104578499540671665824>. See also <http://testtube.com/>.

⁹⁵ See <https://studios.amazon.com/>.

⁹⁶ See <http://www.huffingtonpost.com/news/netflix-original-programming/>.

⁹⁷ See *Sixteenth Video Competition Report* at Appendix D.

recently unveiled a new programming initiative,⁹⁸ and Verizon's AOL, which owns a variety of online publishing outlets, are potential entrants into video programming.

While Charter notes that entry into the creation and supply of video programming appears to occur frequently and believes entry is likely to continue, it does not itself own or operate any video programming networks and does not have knowledge of the specific requirements or time needed to meet each requirement.

Internet Access Services

Internet access services are currently provided by a variety of companies, including cable system operators, telephone companies, municipal utilities, fiber companies, satellite companies, and mobile wireless providers. The past several years have seen substantial entry and expansion, including expansion of high-speed broadband networks by telephone companies such as AT&T, CenturyLink, Frontier, and Verizon into new areas, dramatic increases in performance by mobile wireless networks—which will soon carry more than half of all online video traffic—and *de novo* entry from Google and municipal broadband providers. All of these types of firms are continuing to expand and upgrade their services.

Current Providers and Recent Entrants

Telephone companies provide FTTP services to a growing number of American households and are upgrading their DSL-based services, in many cases by building FTTN, to offer faster speeds across the country. Other cable operators, including new entrants like Google Fiber, municipal providers, fixed wireless providers, and satellite broadband providers, also are competing vigorously. Mobile broadband providers are beginning to offer services that provide

⁹⁸ See, e.g., *Time Inc. unveils new video programming efforts during its Newsfront presentation*, TALKING NEW MEDIA (Apr. 30, 2015), available at <http://www.talkingnewmedia.com/2015/04/30/time-inc-unveils-new-video-programming-efforts-during-its-newfronts-presentation/>.

speeds comparable to many of the fixed broadband services that consumers purchase. As the FCC reported earlier this year, “[p]rivate industry continues to invest billions of dollars to expand America’s broadband networks.”⁹⁹

New investments are resulting in significant gains in delivered broadband speeds for all wireline technologies. Akamai’s first-quarter 2015 “State of the Internet” report, for example, finds that:

- On a year-over-year basis, all 51 states saw higher average connection speeds compared with the first quarter of 2014, and all but two of the states saw double-digit gains. Among the top 10, Delaware again had the largest increase, with a 42% jump over the previous year.
- Massachusetts again had the smallest yearly increase among the top 10, at a still sizeable 18%, while Hawaii saw the smallest increase across the entire country at 8.6%. New Hampshire was the only other state in the country to see a yearly growth rate below 10%, although it came close at 9.8% (to 13.5 Mbps).¹⁰⁰

Similar trends are occurring in wireless broadband. Five years ago, none of the four nationwide mobile broadband providers had even begun to deploy LTE networks.¹⁰¹ Now, all four major wireless providers operate LTE networks that collectively blanket the nation.¹⁰² In

⁹⁹ *Broadband Progress Report* ¶ 15.

¹⁰⁰ See Akamai, *State of the Internet*, Q1 2015, available at <https://www.akamai.com/us/en/multi-media/documents/-content/Q1-2015-SOTI-report.pdf>.

¹⁰¹ Verizon began its deployment in December 2010. Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; FCC, *Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services, Fifteenth Report*, 26 FCC Rcd. 9664 ¶¶ 108-14 (2011) (“Fifteenth Report”), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-11-103A1.pdf (describing the four nationwide mobile broadband providers’ initial efforts to test and deploy LTE services); see also *Blazingly Fast: Verizon Wireless Launches The World’s Largest 4G LTE Wireless Network On Sunday, Dec. 5*, VERIZONWIRELESS.COM (Dec. 3, 2010), available at <http://www.verizonwireless.com/news/2010/12/pr2010-12-03.html> (touting Verizon’s LTE network, which launched in 38 cities in December 2010, as “the world’s largest”).

¹⁰² See Sascha Segan, *Fast Mobile Networks 2015* (June 22, 2015), available at <http://www.pcmag.com/Fastest-Mobile-Networks/>; *4G LTE Network*, VERIZONWIRELESS.COM,

addition, the fastest mobile LTE network in the United States delivers average download speeds close to 20 Mbps and peak speeds over 94 Mbps.¹⁰³ FCC Chairman Wheeler recently announced that the FCC intends to open a formal rulemaking into the use of high-frequency spectrum to support next generation “5G” services.¹⁰⁴

These competitive developments are also reflected in the FCC’s Form 477 data on the availability of both wireline and wireless broadband. The most recent data released by the FCC is from December 2013 and thus does not account for significant additional progress that has been made in the past 18 months, but even the December 2013 data reveal a significant increase in competition:

available at <http://www.verizonwireless.com/news/LTE/Overview.html>; *About Our Network*, ATT.COM, *available at* <http://about.att.com/news/wireless-network.html>; Sprint Reports Results for First Fiscal Quarter of 2014, *4G LTE Launched Markets*, SPRINT.COM (July 30, 2014), *available at* <http://newsroom.sprint.com/news-releases/sprint-reports-results-for-first-fiscal-quarter-of-2014.htm>; *T-Mobile 4G LTE*, T-MOBILE.COM, *available at* <http://t-mobile-coverage.t-mobile.com/4gcitylist.aspx>. According to NTIA data, 97.3% of households in the United States have access to a mobile wireless provider offering downstream speed of at least 10 Mbps. Mobile broadband’s share of the Internet ecosystem is rapidly growing; mobile data traffic is projected to grow three times faster than fixed IP data traffic between 2014 and 2019. Traffic from wireless and mobile devices is also projected to exceed wireline traffic by 2019. *See Cisco Visual Networking Index: Forecast and Methodology, 2014-2019*, CISCO.COM (May 27, 2015), *available at* http://www.cisco.com/c/en/us/solutions/collateral/service-provider/ip-ngn-ip-next-generation-network/white_paper_c11-481360.pdf.

¹⁰³ See Sasha Segan, *Fastest Mobile Networks 2015*, PC MAGAZINE (June 22, 2015), *available at* <http://www.pcmag.com/article2/0,2817,2485838,00.asp>.

¹⁰⁴ Tom Wheeler, *Leading towards Next Generation “5G” Mobile Services* (Aug. 3, 2015), *available at* <https://www.fcc.gov/blog/leading-towards-next-generation-5g-mobile-services>.

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Number of Fixed Broadband Providers¹⁰⁵	% of Households December 31, 2009	% of Households in December 2013
At Least 3	28%	86%
At Least 2	76%	99%
At Least 1	97%	100%

Furthermore, when mobile broadband providers are included, the data show that competition is even more vibrant:

Number of Fixed or Mobile Broadband Providers¹⁰⁶	% of Households in December 2009	% of Households in December 2013
At Least 3	40%	100%
At Least 2	80%	100%
At Least 1	97%	100%

Municipal governments also have begun offering Internet access service to local residents.¹⁰⁷ The FCC reported in February 2015 that there are over 40 communities in 13 states

¹⁰⁵ This chart displays the number of households located in census tracts where fixed broadband providers reported offering broadband Internet access service speeds of at least 3 Mbps downstream and 768 Kbps upstream. See FCC, *Internet Access Services: Status as of December 31, 2009* (Dec. 2010), 7 & fig. 3(a), available at <http://www.arentfox.com/sites/default/files/DOC-303405A1.pdf>; FCC, *Internet Access Services: Status as of December 31, 2013* (Oct. 2014), 9 & fig. 5(a), available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0625/DOC-327829A1.pdf.

¹⁰⁶ This chart displays the number of households located in census tracts where fixed broadband providers reported offering broadband Internet access service speeds of at least 3 Mbps downstream and 768 Kbps upstream or mobile broadband providers reported operating a network capable of such speeds. See FCC, *Internet Access Services: Status as of December 31, 2009* (Dec. 2010), 8 & fig. 3(b), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-303405A1.pdf; FCC, *Internet Access Services: Status as of December 31, 2013* (Oct. 2014), 10 & fig. 5(b), available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-329973A1.pdf.

¹⁰⁷ See, e.g., Edward Wyatt, *Fast Internet Is Chattanooga's New Locomotive*, N.Y. TIMES (Feb. 3, 2014), available at http://www.nytimes.com/2014/02/04/technology/fast-internet-service-speeds-business-development-in-chattanooga.html?_r=0 (describing Chattanooga, Tennessee's taxpayer-owned fiber optic network).

with publicly owned networks offering some form of 1 Gbps service and almost 90 communities with publicly owned FTTH networks reaching most or all of the community.¹⁰⁸

Competition for high-speed broadband service is increasing rapidly, including in the New Charter service area. For example, NTIA data shown below indicate that the proportion of households in New Charter service territory with a competitive alternative offering of at least 25 Mbps/3 Mbps service grew significantly from 2012 to 2014, and that the increase was significant for all modalities:

**Proportion of Households in New Charter Service Territory
With One or More Wireline Broadband Alternatives
Offering 25 Mbps/3 Mbps Service (2012-2014)¹⁰⁹**

	2012	2013	2014
<i>Any Technology</i>	28.0%	32.1%	34.5%
<i>DSL</i>	6.2%	9.7%	10.9%
<i>Fiber</i>	20.1%	22.0%	22.8%
<i>Other Cable</i>	8.2%	7.8%	9.3%

These trends are likely to continue. There are several broadband companies with a stated plan to expand their coverage areas, including within the New Charter service territory.

AT&T is a major nationwide provider of wireline and wireless Internet access service. AT&T's U-verse has consistently increased speed capabilities in its service areas. In addition, AT&T has recently begun deploying 1 Gbps FTTP networks in select areas under the GigaPower brand name, many of which overlap with New Charter's service territory. The following 2014 map shows the areas in which AT&T has indicated it is considering offering service.

¹⁰⁸ See Broadband Progress Report ¶ 16.

¹⁰⁹ *Source:* National Broadband Map annual data. Note: [1] Data on Internet provider census blocks served is from the December 2012, December 2013 and June 2014 National Broadband Maps. Households at the census-block level are from the 2010 U.S. Census. [2] The "Other Cable" category shows overlap with at least one other cable provider.

AT&T U-verse with GigaPower Footprint¹¹⁰



The table below shows New Charter’s overlap with AT&T’s broadband footprint and with its growing GigaPower footprint.¹¹¹ As the data show, of the [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] million New Charter residential broadband subscribers in areas served by AT&T wireline broadband, about [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] live in census blocks where AT&T has already deployed GigaPower. Taking account of areas in

¹¹⁰ *Id.*

¹¹¹ With the completion of its DirecTV acquisition, AT&T released a statement indicating that it plans to reach more than 14 million other locations with its all-fiber footprint. As stated on the AT&T GigaPower website, GigaPower is “available now” in Atlanta, Georgia; Austin, Texas; Charlotte, North Carolina; Chicago, Illinois; Dallas, Texas; Fort Lauderdale, Florida; Fort Worth, Texas; Greensboro, North Carolina; Houston, Texas; Kansas City, Kansas/Missouri; Miami, Florida; Nashville, Tennessee; Raleigh-Durham, North Carolina; San Jose, California and Winston-Salem, North Carolina. GigaPower is “planned” for Jacksonville, Florida; San Antonio, Texas and St. Louis, Missouri. GigaPower is “being explored” in Augusta, Georgia; Cleveland, Ohio; Los Angeles, California; Oakland, California; Orlando, Florida; San Diego, California; and San Francisco, California. See AT&T, *U-verse with AT&T GigaPower Is Expanding*, available at <http://www.att.com/att/gigapowercities/>. AT&T offers stand-alone GigaPower service with 1 Gbps download speeds for \$120/month. See AT&T, *U-verse with AT&T GigaPower*, available at <https://www.att.com/-shop/u-verse/gigapower.html>.

which AT&T is planning to deploy or exploring deployment of GigaPower raises that figure to

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territories.

**AT&T U-verse GigaPower Overlap of New Charter Subscribers¹¹²
(DMAs currently served, planned entry, and being explored)**

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This analysis understates high-speed broadband competition facing New Charter, especially given the recently completed acquisition of DirecTV by AT&T.¹¹³ As a condition for approval of the merger, the FCC required AT&T to deploy FTTP to 12.5 million locations within four years of closing.¹¹⁴ In addition, in AT&T's public interest statement, AT&T committed to expanding its broadband network to 15 million homes, mostly in underserved rural areas, relying

¹¹² *Source:* Company Confidential 477 Data from December 2014; National Broadband Map June 2014; U.S. Census 2010; *see* AT&T, *U-verse with AT&T GigaPower Is Expanding*, available at <http://www.att.com/att/gigapowercities/>. Note: The New Charter footprint and subscriber data are from confidential 477 data from December 2014. The AT&T footprint is from the June 2014 National Broadband Map. The GigaPower overlap is based on a carrier census block being served by AT&T Fiber with a maximum advertised download speed of 100 Mbps to 1 Gbps in the National Broadband Map or within AT&T's current footprint regardless of technology in a GigaPower city boundary according to the AT&T website if National Broadband Map data are not available. The current GigaPower city San Jose does not have an AT&T footprint in the National Broadband Map data and is not included in this analysis.

¹¹³ AT&T completed its acquisition of DirecTV on July 24, 2015. *See* Press Release, AT&T, *AT&T Completes Acquisition of DirecTV* (July 24, 2015), available at http://about.att.com/story/att_completes_acquisition_of_directv.html.

¹¹⁴ FCC, AT&T-DirecTV Order ¶ 6.

on a mixture of FTTP and fixed wireless local loop (“FWLL”) broadband capabilities, within four years of closing the transaction.¹¹⁵

Google Fiber is a significant and growing *de novo* entrant in the broadband marketplace. In the five years since Google Fiber announced plans to lay fiber in certain U.S. cities, Google has begun offering gigabit-speed FTTP connections in three cities, with deployments under way in six more cities, and it is considering entry into another six cities.¹¹⁶

¹¹⁵ AT&T, *Description of Transaction, Public Interest Showing, and Related Demonstrations* (June 11, 2014), available at http://licensing.fcc.gov/myibfs/download.do?attachment_key=1050160.

¹¹⁶ As stated on the Google Fiber website, “current” Google Fiber cities include Provo, Utah; Austin, Texas and Kansas City, Kansas/Missouri. “Upcoming” Google Fiber cities include Salt Lake City, Utah; Nashville, Tennessee; Atlanta, Georgia; Charlotte, North Carolina; Raleigh-Durham, North Carolina and San Antonio, Texas. “Potential” Google Fiber cities include Irvine, California; Louisville, Kentucky; Portland, Oregon; San Diego, California; San Jose, California and Phoenix, Arizona. See *Expansion Plans* Google Fiber, available at <https://fiber.google.com/newcities/>. Irvine, Louisville and San Diego were announced on September 10, 2015. See *Exploring Three New Cities for Google Fiber*, available at <http://googlefiberblog.blogspot.com/2015/09/exploring-three-new-cities-for-fiber.html>. Google offers stand-alone “Gigabit Internet” service for \$70/month, as well as a “Basic Internet” service with 5 Mbps download/1 Mbps upload for free. See *Residential Plans*, GOOGLE FIBER, available at <https://fiber.google.com/-cities/kansascity/>. Google’s time between deployment announcement, construction, fiberhood launch, and initial installation has decreased as it has gained experience.

Google Fiber Footprint (September 2015)¹¹⁷



Kansas City (which is within the New Charter service territory), was the first city that Google Fiber entered. As of January 2015, Google passed 210,000 homes in the Kansas City DMA. As shown below, based on December 2014 data, New Charter will have a presence in 12 of these current and prospective DMAs in which Google Fiber will operate; these DMAs together account for 19% of legacy Charter subscribers and 34.4% of legacy TWC subscribers and for 26.6% of New Charter subscribers overall:

¹¹⁷ *Expansion Plans*, GOOGLE FIBER, available at <https://fiber.google.com/newcities/> (Sept. 10, 2015).

Google Fiber Presence within New Charter’s Service Areas¹¹⁸

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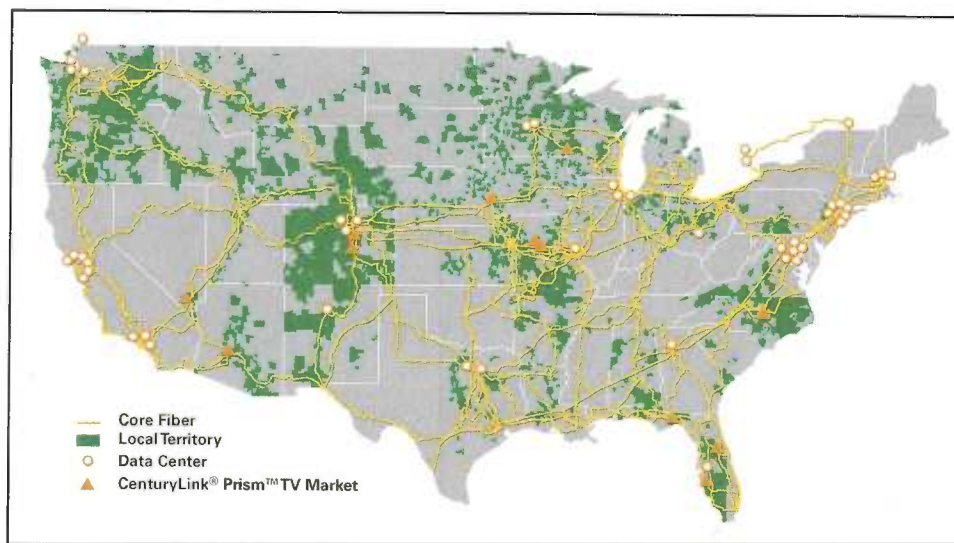
[END HIGHLY CONFIDENTIAL INFORMATION]

Telco-based infrastructures, including FTTN as well as FTTP infrastructures, are also exhibiting rapid increases in performance and expansion of their broadband footprint.¹¹⁹ For

¹¹⁸ *Source:* Company Confidential 477 Data from December 2014; *Expansion Plans*, GOOGLE FIBER, available at <https://fiber.google.com/newcities/>. Note: [1] New Charter subscriber data is from confidential 477 data from December 2014. [2] “Total (All DMAs)” displays total subscribers across all DMAs in the parties’ to the proposed transactions footprints. The total for the “Combined Firm” includes BHN subscribers, which are not shown in the chart because BHN does not have any subscribers in the Google Fiber DMAs. [3] Analysis shows the Merging Parties Residential Broadband Internet Subscribers within DMAs that are serviced, committed to be serviced, or potentially could be serviced by Google Fiber. This analysis does not show subscriber overlap with the Google Fiber footprint.

example, the CenturyLink map shows the broad fiber coverage of the company throughout the U.S. and the interplay with PrismTV, its MVPD offering.

CenturyLink Footprint and Prism TV¹²⁰



¹¹⁹ The same is true of satellite-based technologies. According to the FCC, “[s]atellite broadband service has improved significantly, and many consumers today have high-speeds, low prices, and generous data usage allowances. Satellite broadband providers offer a range of speeds with different usage limits at different prices, depending on the type of services, with monthly service price offerings currently as low as \$50.” *Broadband Progress Report* (Feb. 4, 2015) ¶ 123, available at <https://www.fcc.gov/document/fcc-finds-us-broadband-deployment-not-keeping-pace-0>. DirecTV (offered through Viasat/Exede) offers speeds up to 12 Mbps downstream (3 Mbps upstream). DISH (through DISHNet/Hughes) offers speeds up to 15 Mbps downstream (2 Mbps upstream). See *Broadband Progress Report* (Feb. 4, 2015) ¶ 122. The main constraint has been the limitation on the amount of data a subscriber can download. At DirecTV, data allowances range from 10 to 25 GB, while at DISH they range from 10 to 40 GB. The *Sixteenth FCC Report* on the status of MVPD competition describes satellite broadband as providing Internet to underserved areas, but not as a viable option for streaming video online. See FCC, *Sixteenth Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming* (Apr. 2, 2015) ¶¶ 118-19 and n.412, available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-41A1.pdf.

¹²⁰ Stewart Ewing, *2015 Deutsche Bank Media, Internet, & Telecom Conference*, CENTURYLINK (Mar. 9, 2015), available at <http://ir.centurylink.com/Cache/1001195636.PDF?Y=&O=PDF&D=&fid=1001195636&T=&iid=4057179>.

As the CenturyLink website indicates, CenturyLink's Internet network covers the entire continental U.S. and is one of the largest fiber footprints in the U.S., capable of supporting at least 40 Gbps data transmission rates. It has announced plans to bring its symmetrical broadband (1 Gbit per second both downstream and upstream) to both homes and businesses to eight cities—including Denver, Minneapolis-St. Paul, Orlando, and Portland, where New Charter will also have operations.



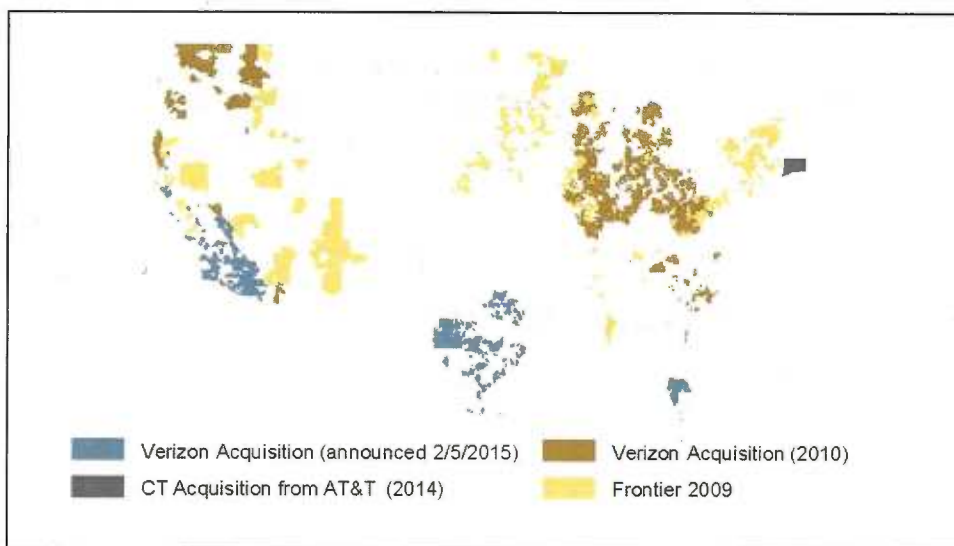
In September 2015, CenturyLink indicated that it had deployed its 1 Gbit broadband service in six states and was on track to have its offering available to about 700,000 homes by the end of 2015.¹²¹

¹²¹ Jeff Baumgartner, *CenturyLink Expands 1-Gig Reach*, MULTICHANNEL NEWS (Sept. 15, 2015), available at <http://www.multichannel.com/news/content/centurylink-expands-1-gig-reach/393753>.

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Frontier Communications had almost 2.4 million high-speed Internet subscribers by year-end 2014, and indicates that, on a 2014 *pro forma* basis, the inclusion of the Connecticut system that it has acquired from AT&T and the Florida, California, and Texas systems that it proposes acquiring from Verizon, would increase its high-speed Internet subscribers count (based on year-end 2014 figures) to almost 4.6 million:

Frontier Communications Footprint¹²²

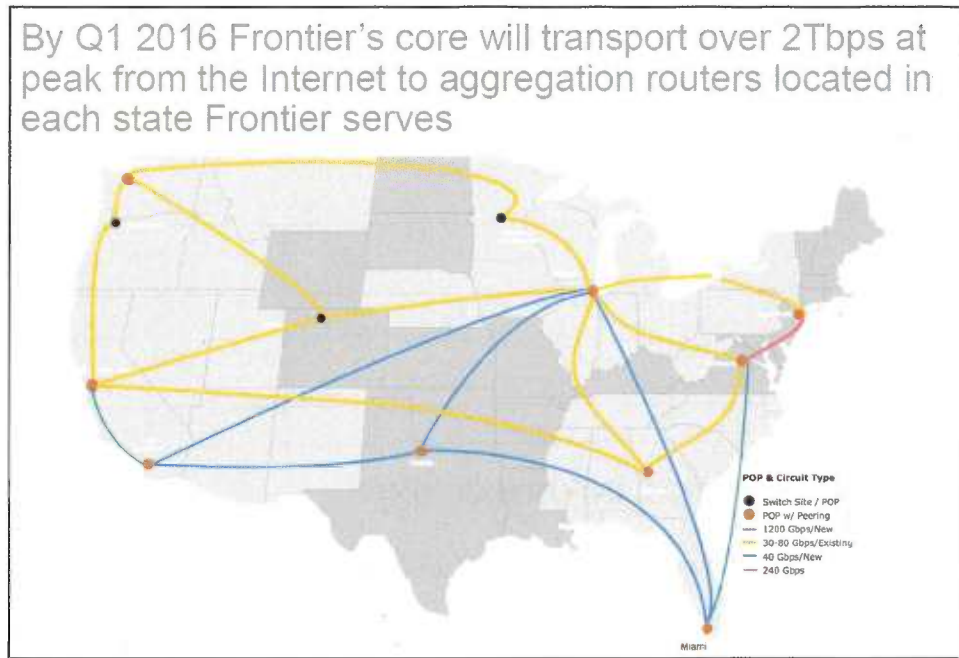


Frontier has also indicated that it will soon offer a new 100 Mbps service tier in the Connecticut territories that the company acquired from AT&T.

In addition, Frontier has indicated to the FCC that it plans to deploy high-speed broadband to an additional 750,000 households by 2020.¹²³ Frontier released the following map showing the “core” fiber backbone routes that Frontier will use for transport by Q1 2016:

¹²² *Investor Update, Second Quarter 2015* (Aug. 3, 2015), available at http://files.shareholder.com/downloads/-AMDA-OJWDG/0x0x842854/F5C6AA65-93E9-4859-8759-A7ACE987223B/FTREARNINGS_DECK_-Q215_Final.pdf.

¹²³ Letter to Chairman Tom Wheeler, FCC, from Daniel McCarthy, President and Chief Executive Officer, Frontier Communications, dated August 11, 2015.



Los Angeles is one of the key points of presence. Frontier plans to use FTTN, FTTH, and other network upgrades to achieve its commitment.

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CONFIDENTIAL INFORMATION] Column A ("Provider Name") of Exhibit 5 provides the name of the fiber company providing MVPD and/or Internet access services in Charter-served census blocks. Column B ("Overlapping Census Block") provides the Charter-served census block in which the fiber company currently provides MVPD and/or Internet access services.

As shown in the table below, the Centris report shows that of the [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

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Finally, Charter also faces growing competition for high-speed customers from providers utilizing DSL technology. As noted above, the average delivered speed of DSL connections has increased significantly in recent years, reaching 7.9 Mbps by 2013. The table below presents data on the proportion of New Charter subscribers and households passed which have the option of choosing high-speed (25+ Mbps/3+ Mbps) broadband service provided using DSL infrastructures, by DMA, according to data from the National Broadband Map. As the table shows, overall **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]. These data clearly show that DSL-based infrastructures continue to compete effectively with cable-based operators such as Charter.

¹²⁴ Total adjusted to eliminate overlap between a small number of AT&T and Verizon census blocks.

High Speed DSL (25+ Mbps/3+ Mbps) Availability in New Charter Census Blocks, Select DMAs¹²⁵

[illegible]

¹²⁵ *Source:* Company Confidential 477 Data from December 2014; National Broadband Map June 2014; U.S. Census 2010. *Notes:* [1] The New Charter footprint and subscriber data are from confidential 477 data from December 2014. Data on DSL competitors is from the June 2014 National Broadband Map. Households at the census block level are from the 2010 U.S. Census. [2] DSL includes Asymmetric xDSL, Symmetric xDSL and Other Copper Wire in the National Broadband Map. [3] Table includes subscribers and households passed where the maximum advertised download speed is 25 Mbps or greater and the maximum advertised upload speed is 3 Mbps or greater.

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Requirements and Time Necessary to Enter Internet Access

Potential new entrants into the provision of Internet access services may include telephone companies, technology companies, cable companies, wireless companies, or government municipalities. Charter believes each of these types of entities is a possible entrant into the Internet access service business because each already engages in the provision of a related service, and/or has capabilities or owns assets which are inputs into or complements to the provision of Internet access services. Specifically, these types of entities own or have the capacity to acquire key inputs, such as last-mile distribution infrastructures; the operational capability to operate Internet access services; the ability to access backhaul and interconnection capabilities; and the marketing and administrative capabilities necessary to engage in the provision of Internet access service.

<u>Requirement</u>	<u>Time Required to Satisfy Requirement</u>
Last-mile infrastructure	<ul style="list-style-type: none">• 3-6 months for network resellers/MVNOs• 6-12 months (for firms already possessing some last-mile distribution capabilities, such as telcos and mobile wireless providers, but requiring technology modifications or upgrades)• 12-24 months (for firms such as Google Fiber or municipalities that choose to build a distribution network from scratch)
Backhaul and Interconnection	<ul style="list-style-type: none">• <i>De minimis</i> for existing firms expanding into new territories• 3-6 months for de novo entrants
Marketing and Administration	<ul style="list-style-type: none">• <i>De minimis</i> for existing firms• 6-12 months for firms utilizing traditional billing systems

Requirement

Time Required to Satisfy Requirement

Governmental Approvals

- Charter does not track government permitting requirements for entry into the Internet Access Service business by other types of firms but estimates that obtaining permits for deployment of a new wireline broadband infrastructure may take 6-12 months, depending on the jurisdiction

Finally, Charter believes that as innovations in wireless technology lead to faster speeds and greater capacity,¹²⁶ other wireless options are likely to emerge and begin offering high speed fixed and mobile broadband products. Additional spectrum, including the 600 MHz spectrum scheduled to be made available through the FCC’s Incentive Auction scheduled for March 2016, will also reduce entry barriers for wireless broadband providers.¹²⁷ These reductions in cost will likely cause reductions in prices for consumers and greater usage of mobile wireless broadband.

Internet Backbone Services

The Internet backbone service industry, including Internet transit, paid peering and settlement free peering, is dynamic and continues to evolve in response to changes in technology and consumer preferences. In the order approving the Level 3/Global Crossing merger, the FCC noted that “the number of Tier 1 ISPs appears to have grown since 2005” and that “[t]he emergence of several new Tier 1 peers . . . undercuts the argument that there are overwhelming

¹²⁶ See Sascha Segan, *Fastest Mobile Networks 2014*, PC MAGAZINE (June 11, 2014), available at <http://www.pcmag.com/article2/0,2817,2459185,00.asp>.

¹²⁷ See FCC, *In the Matter of Expanding Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket 12-268, Report and Order (June 2, 2014) ¶ 2, available at <https://www.fcc.gov/document/fcc-adopts-rules-first-ever-incentive-auction-0> (“[B]y making more spectrum available for mobile broadband use, the incentive auction will benefit consumers by easing congestion on the Nation’s airwaves, expediting the development of new, more robust wireless services and applications, and spurring job creation and economic growth.”).

barriers to entry into the Tier 1 market.”¹²⁸ Several other companies in addition to traditional Tier 1 ISPs offer combinations of direct peering, transit, and content delivery network (“CDN”) services, and that number is likely to continue to grow. Internet-based companies including Google, Facebook, and Amazon have also begun investing in their own Internet backbone infrastructure.¹²⁹ By investing in fiber networks, Internet-based companies may be able to reduce their own content delivery costs and improve performance. As overall Internet traffic increases with the proliferation of high-definition streaming video and other bandwidth-intensive applications, more Internet-based companies are likely to invest in backbone infrastructure and enter into the supply of Internet backbone service.

Charter does not offer Internet backbone services commercially and does not have specific knowledge of the requirements or time delays involved in entering the market for such services.

¹²⁸ FCC, *In the Matter of Applications Filed by Global Crossing Limited and Level 3 Communications, Inc. for Consent to Transfer Control, Memorandum Opinion and Order and Declaratory Ruling*, IB Docket No. 11-78, 26 FCC Rd. 14056, adopted Sept. 29, 2011, ¶ 28, available at https://apps.fcc.gov/edocs_public/attachmatch/DA-11-1643A1.pdf.

¹²⁹ See Drew Fitzgerald & Spencer E. Ante, *Tech Firms Push to Control Web’s Pipes*, WALL ST. J. (Dec. 16, 2013), available at [https://peering.google.com/about/delivery_ecosystem.html](http://online.wsj.com/news/article_email/SB10001424052702304173704579262361885883936-IMyQjAxMTAzMDEwNjExNDYyWj; see also Brandon Butler, How Amazon’s Cloud Solved the “Perfect Storm” in Networking, NETWORK WORLD (Nov. 13, 2014), available at http://www.networkworld.com/article/2847343/public-cloud/how-amazon-s-cloud-solved-the-perfect-storm-in-networking.html; GOOGLE PEERING & CONTENT DELIVERY (Aug. 13, 2015), available at <a href=).

REQUEST 6

6. Identify each person who holds an attributable interest in the Company, and for each identified person, describe: (i) the nature and extent of each attributable interest, including the percentage of each ownership interest and all board representation, management rights, voting rights, or veto power; and (ii) all effects that the transaction, if consummated, would have on the interests described in response to (i).

Response to Request 6:

Without conceding whether an attributable interest exists, as of July 31, 2015, to the knowledge of the Company, the following entities own 5% or more of the Company: Liberty Broadband Corporation (25.74%); SPO Advisory Corp. (6.83%); Lone Pine Capital LLC (5.66%); Berkshire Hathaway Inc. (5.53%).¹³⁰ See Exhibit 6-1 in the enclosed hard drive in the folder “Request 6,” at 341. Dr. John Malone is Chairman of the Board of Liberty Broadband, in which he owns shares constituting 46.6% of the voting power and 8.7% of the equity. Dr. Malone, through his ownership interest in Liberty Broadband, may be deemed to have an attributable interest of 12% in the Company.

Charter’s Board of Directors is comprised of Eric L. Zinterhofer (Chairman), W. Lance Conn, Michael Huseby, Craig A. Jacobson, Gregory Maffei, Dr. John C. Malone, John D. Markley, Jr., David C. Merritt, Balan Nair, and Thomas M. Rutledge.

Charter’s officers under Section 16 of the Exchange Act are as follows: Thomas M. Rutledge, President and Chief Executive Officer; Christopher L. Winfrey, Executive Vice President and Chief Financial Officer; John Bickham, Chief Operating Officer; Donald F. Detampel, Jr., Executive Vice President and President, Commercial Services; Richard R. Dykhouse, Executive Vice President, General Counsel and Corporate Secretary; Jonathan

¹³⁰ On August 14, 2015, Berkshire Hathaway filed a Form 13-F with the SEC disclosing that it now owns 8,514,678 Charter voting shares, which corresponds to approximately a 7.60% ownership share.

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Hargis, Executive Vice President, Chief Marketing Officer; and Kevin D. Howard, Senior Vice President—Finance, Controller and Chief Accounting Officer.

The Stockholders Agreement between Charter and Liberty Broadband, dated as of March 19, 2013, as amended, provides the relevant board representation, management, voting, and veto power rights. Subject to Liberty Broadband's continued ownership of 20% or more of the outstanding shares of Class A common stock of Charter, the Stockholders Agreement provides that Liberty Broadband will be entitled to designate up to four persons as nominees for election to Charter's board of directors at least until January 2016 and that one such designee director (as specified by Liberty Broadband) will serve on each of the Audit Committee, the Nominating and Corporate Governance Committee, and the Compensation and Benefits Committee of Charter's board of directors. Consistent with these provisions, Dr. Malone serves on the Nominating and Corporate Governance Committee, Mr. Maffei serves on the Finance Committee and the Compensation and Benefits Committee and Mr. Huseby serves on the Audit Committee. Liberty Broadband has agreed that, so long as its designees are included in the group recommended by the Nominating and Corporate Governance Committee, it will vote its shares of Class A common stock in accordance with the recommendation of the Nominating and Corporate Governance Committee of the board of directors with respect to the election or removal of directors. In addition, Liberty Broadband is subject to certain customary standstill provisions that prohibit it from, among other things, engaging in any solicitation of proxies or consents relating to the election of directors, proposing a matter for submission to a vote of shareholders of Charter or calling a meeting of shareholders of Charter or taking any action or making any public statement not approved by the board of directors to seek to control or influence the management, the board of directors or the policies of Charter.

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Further details on the current relationship between Liberty Broadband, Charter, and other entities are described in response to Request 16 and in Charter's Definitive Proxy Statement filed with the SEC on August 20, 2015 (provided as Exhibit 6-1 in the enclosed hard drive in the folder "Request 6").¹³¹

Following the proposed transactions (assuming full exchange of the units of the New Charter operating partnership that will be held by Advance/Newhouse into shares of New Charter common stock), Liberty Broadband will hold approximately 17% to 19%¹³² of the common voting stock of New Charter and Liberty Interactive, a public company in which Dr. Malone holds a 36.6% voting interest, will own between approximately 1.7% and 1.9% of the New Charter common stock and provide a proxy to Liberty Broadband to vote those shares.¹³³ Further details regarding Liberty Broadband's post-Transaction relationship with Charter, including its Board representation and voting power, are described in response to Request 16.

¹³¹ A supplement to that Definitive Proxy Statement, filed on Form 8-K, is included as Exhibit 6-2.

¹³² For all share calculations in this response, the exact percentage will depend on the elections made by TWC shareholders during the contemplated transactions. Liberty Broadband will hold a proxy to vote Advance/Newhouse's shares representing up to 7% of the total votes of the New Charter common stock for five years, with certain limitations, bringing Liberty Broadband's voting share up to a maximum of 25.01% if the shares subject to the Liberty Interactive proxy are included. Under a new Stockholders Agreement, the voting rights of Advance/Newhouse and Liberty Broadband are capped at various levels. The new Stockholders Agreement also places restrictions on Advance/Newhouse and Liberty Broadband's rights to transfer shares, and Advance/Newhouse and Liberty Broadband will have certain contractual preemptive rights over issuances of New Charter equity securities in connection with capital-raising transactions, in connection with merger and acquisition transactions, and in certain other circumstances.

¹³³ If the Advance/Newhouse transaction does not close but Charter completes the transaction with TWC, Liberty Broadband will hold approximately 19% to 21% of the common voting stock of New Charter.

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The following additional entities may be deemed to have attributable interests of at least 5% of the Company, either directly or indirectly: John C. Malone (8.9-9.6%, indirectly via his voting interest in Liberty Broadband);¹³⁴ Advance/Newhouse Partnership (“Advance/Newhouse”) (13-14%);¹³⁵ A/NPC Holdings LLC (13-14%, indirectly via interest in Advance/Newhouse);¹³⁶ Newhouse Cable Holdings LLC (13-14%, indirectly via interest in Advance Newhouse);¹³⁷ Newhouse Broadcasting Corporation (13-14%, indirectly via interest in Advance/Newhouse).¹³⁸

Charter has not yet determined the composition of its Board post-Transaction. With regard to its executive officers, Don Detampel (Executive Vice President and President,

¹³⁴ In view of the proxies described in note 132, Dr. Malone, through his interest in Liberty Broadband, may be deemed to have an attributable interest of up to 11.7% in New Charter.

¹³⁵ However, as noted above, Liberty Broadband will hold a proxy to vote Advance/Newhouse’s shares representing up to 7% of the total votes of the New Charter common stock for five years.

¹³⁶ A/NPC Holdings LLC holds a 99% direct interest in Advance/Newhouse, which successive multiplication treats as 100%, which will result in A/NPC Holdings having an attributable 13-14% indirect interest in New Charter. However, as noted above, Liberty Broadband will hold a proxy to vote Advance/Newhouse’s shares representing up to 7% of the total votes of the New Charter common stock for five years.

¹³⁷ Newhouse Cable Holdings holds a 61.24% interest in A/NPC holdings LLC which successive multiplication treats as 100%, and will result in Newhouse Cable Holdings having an attributable 13-14% indirect interest in New Charter. However, as noted above, Liberty Broadband will hold a proxy to vote Advance/Newhouse’s shares representing up to 7% of the total votes of the New Charter common stock for five years. In addition, Advance Communications Company, LLC, a U.S. media and communications company, holds a 38.76% interest in, and acts as Manager of, A/NPC Holdings LLC. Advance Communications Company is a wholly owned subsidiary of Newark Morning Ledger Co., a U.S. media company, which is itself a wholly owned, indirect subsidiary (through a series of wholly owned subsidiaries) of Advance Publications, Inc., a U.S. media company.

¹³⁸ Newhouse Cable Holdings LLC is a wholly owned subsidiary of Newhouse Broadcasting Corporation, which as noted above, results in Newhouse Broadcasting Corporation having an attributable 13-14% indirect interest in New Charter. However, as noted above, Liberty Broadband will hold a proxy to vote Advance/Newhouse’s shares representing up to 7% of the total votes of the New Charter common stock for five years.

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Commercial Services) will remain in his current position to help with the transition and integration of TWC and BHN, but intends subsequently to leave Charter.

REQUEST 7

7. Identify each video programming network that the Company owns or controls and each video programming network in which the Company or any officer, director, or executive of the Company, or any entity sharing officers, directors, executives with New Charter, holds or will hold an attributable interest and, for each video programming network separately for each month from January 1, 2010, until the present, state (i) the nature, percentage, and extent of each attributable interest in or distribution rights for video programming held by the Company or by an officer, director, or executive of the Company, or by any entity sharing officers, directors, executives or attributable interest holders with New Charter, including but not limited to all board representation, management rights, voting rights, or veto power; (ii) the identity and percentage of each other person holding an interest in the video programming; (iii) how and when the video programming network formed and from whom the interest was acquired; (iv) if the interest was sold or transferred, identify the company or other person acquiring the interest and the rationale for the transaction; (v) total number of subscribers receiving the programming network on the Company's systems and the total number of subscribers receiving the programming network by MVPD, OVD, or any other distribution arrangement; (vi) identify each MVPD or OVD that carries the programming network, the tier on which it is carried, and the total number of subscribers for each tier; (vii) the total revenues for the programming network from each MVPD and OVD, categorized by subscriber fee, advertising revenue, and other (describe); (viii) total advertising revenue from the video programming network; (ix) the number of minutes per hour granted each MVPD for local ad sales for the video programming network; (x) the margin the Company earns on each video programming network, separate for each MVPD or OVD; (xi) the nature and extent of the Company or by an officer or director of the Company in the management, operation, production, or distribution of the identified video programming; and (xii) all effects that the transaction, if consummated, would have on the interests or relationships described above, including but not limited to each attributable interest in video programming that would be held by New Charter post transaction. Provide responses to subparts (v)-(x) in .csv format.

Response to Request 7:

Charter itself does not own, control, or hold an attributable interest in any video programming networks and has not held such an interest during the relevant period, other than a small number of local origination channels whose programming Charter does not license for distribution to third parties.¹³⁹ Following the Transaction, New Charter will hold the

¹³⁹ As set forth in Charter's Response to Request 8, *infra*, which Charter incorporates by reference, although Charter was a minority owner of one regional sports network ("RSN") for a few days at the beginning of the relevant period, Charter had no management or governance rights in the RSN, divested from its minority interest within days of July 24, 2013, and has not retained information that would be responsive to this Request.

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programming interests currently held by TWC and BHN as set forth in Exhibits G and H to the June 25, 2015 Public Interest Statement submitted in connection with the Transaction.

With respect to programming networks in which any officer, director, or executive of the Company, or any entity sharing officers, directors, or executives with New Charter, holds or will hold an attributable interest, Charter responds to the best of its knowledge.¹⁴⁰ Charter is aware that Dr. Malone, entities in which Dr. Malone and Gregory Maffei¹⁴¹ may be deemed to have an attributable interest, and Advance/Newhouse each hold interests in video programming networks responsive to this Request. With respect to the nature of such interests, Charter incorporates by reference its responses to Requests 15(i) and (ii), *infra*. In addition, Charter is aware that one of its directors, Craig Jacobson, also serves on the board of directors of Tribune Media Company, which operates a number of broadcast stations and WGN America. Charter has no independent knowledge of any additional specific video programming networks associated with Tribune Media, but notes that Tribune Media publicly lists its broadcast and other programming interests at <http://www.tribunemedia.com/our-brands/>. The full Board of New Charter has not yet been selected and Charter therefore is unable to predict the extent to which the Transaction will result in any changes to these interests or relationships.

Response to Request 7(v):

The Company's response to Request 7(v) is provided in "Exhibit 7(v).csv" on the enclosed hard drive in the folder "Request 7," which consists of information on the total number of subscribers in the Company's systems receiving programming networks in which the Company or any officer, director, or executive of the Company, or any entity sharing officers,

¹⁴⁰ Charter and the holders of the interests referenced in this response do not necessarily concede that all of these interests are "attributable" within the meaning of the Commission's rules.

¹⁴¹ Mr. Maffei serves on the boards of directors of Liberty Broadband, Liberty Interactive Corporation, and Starz.

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directors, executives with New Charter, holds or will hold an attributable interest on a monthly basis from January 2010 to June 2015, in CSV format. Information included in this Exhibit 7(v) was sourced from the Company's Programming Expense Tracking System ("PETS") database. It is not within the scope of PETS to track information on video programming channels that are broadcast by Charter without a programming agreement that sets out per subscriber fees.

In this file, columns "month" and "channel_name" show the month and channel name for which the requested information is provided, respectively. The column "subscribers" shows the number of the Company's subscribers whose MVPD programming packages included the given channel in the given month.

Charter does not have governance or management rights in any of the video programming networks in which any officer, director, or executive of Charter, or any entity sharing officers, directors, or executives with New Charter, may hold an attributable interest. Accordingly, further specific information requested by this Request, beyond the Company's own carriage of such programming networks, is not within the custody or control of the Company.

REQUEST 8

8. Identify each RSN in which the Company, or an officer, director, or executive of the Company holds an attributable interest or distribution rights, and for each provide the following information:

- a. a description of each distribution zone or other geographic area in which the RSN is licensed to MVPDs or OVDs, including a description of each zone's boundaries and a list of each DMA (identified by name and rank) associated with the distribution zone or area;
- b. separately for each MVPD or OVD, including but not limited to the Company, that carries or has carried the RSN, the month and year in which the MVPD or OVD began carrying, and if applicable, stopped carrying the RSN; and
- c. the identity of each MVPD that serves each DMA in which the RSN is offered that does not distribute the RSN and state the reason you do not license the RSN to each identified MVPD.

Response to Request 8:

During the period from January 24, 2013 to the date of the response, Charter has had an ownership interest in only one RSN, which it sold approximately one week into the relevant period. Charter was a minority owner of Comcast/Charter Sports Southeast ("CSS"), a regional sports network, which launched in 1999 and operated as "Charter Sports Southeast" in Charter's footprint and "Comcast Sports Southeast" in Comcast's footprint.

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[END HIGHLY CONFIDENTIAL INFORMATION]. CSS

was taken off the air and operations were closed on June 1, 2014. CSS was managed by Comcast, which also had full governance rights. Since divesting its partial interest in CSS, Charter has not retained any other information that would be responsive to this Request.

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Other than as set forth above, Charter is not aware of any officer, director, or executive of the Company holding an attributable interest or distribution rights in an RSN during the time period relevant to this Request.

REQUEST 9

9. Describe any discussions and provide all documents relating to deliberations and decisions to create, launch, acquire, or distribute any RSN identified in response to Request 8 or in which the Company, or an officer, director, or executive of the Company, or any entity sharing officers, directors, executives, or attributable interest holders with New Charter, would hold an attributable interest or distribution rights.

Response to Request 9:

Charter is not aware of any discussions, deliberations, or decisions responsive to this Request.

REQUEST 10

10. Identify each instance, including the relevant dates, where an MVPD has discussed with you or any of your officers, directors, or executives raising, threatened to raise, or has raised, a program access complaint as a means to obtain the right to distribute video programming in which you or any of your officers, directors, or executives, or any entity sharing officers, directors, executives or attributable interest holders with New Charter, has an attributable interest or has distribution rights, including via VOD and PPV, and separately for each type of video programming (i.e., standard or high definition), describe:

- a. the nature of the dispute or issue;
- b. the persons involved in the dispute; and
- c. how and whether the dispute or issue was resolved. To the extent the dispute was settled, explain whether the settlement required program access to the complaining party, and produce all documents relating to each instance identified, and any settlement thereof.

Response to Request 10:

As explained in response to Request 7, *supra*, Charter does not itself hold an attributable interest in any video programming network. With respect to video programming networks in which Charter's officers, directors, or executives hold an attributable interest, Charter does not keep records of MVPDs' requests to Charter, if any, to obtain distribution rights. Therefore, Charter's response to this Request is based upon reasonable inquiry of knowledgeable employees of the Company.

Subject to these qualifications, Charter is not aware of any instances or discussions responsive to this Request.

REQUEST 11

11. Provide a list of each agreement currently in effect between the Company and any other person relating to the carriage, licensing, or distribution of any video programming owned by, controlled by, or distributed by the Company, or by any officer, director, or executive of the Company, or by any entity that will share officers, directors, executives or attributable interest holders with New Charter, and produce all documents relating to each negotiation between the Company and any (a) MVPD and (b) OVD for video programming, regardless of whether or not the negotiations resulted in an agreement (formal or informal). Identify each negotiation, and separately for each negotiation, list the date on which the negotiation began, each date on which a term sheet or draft contract was exchanged between the parties, and the date on which the negotiations concluded.

Response to Request 11:

As set forth in Charter's response to Request 7, *supra*, Charter itself does not own, control, or hold an attributable interest in any video programming networks and has not held such an interest during the relevant period, other than a small number of local origination channels whose programming Charter does not license for distribution to third parties.¹⁴² In addition, although this Request also seeks information regarding ownership, control, or distribution rights in video programming held by Charter's officers, directors, or executives, or entities that will share officers, directors, or executives with New Charter, Charter by definition does not itself own, control, or distribute such video programming, and accordingly is not the entity that would be engaged in any licensing of such programming to other MVPDs or to OVDs.

Accordingly, Charter has no information responsive to this Request.

¹⁴² As set forth in Charter's Response to Request 8, *infra*, which Charter incorporates by reference, although Charter was a minority owner of one RSN for a few days at the beginning of the relevant period, Charter had no management or governance rights in the RSN, divested from its minority interest within days of July 24, 2013, and has not retained information that would be responsive to this Request.

REQUEST 12

12. Identify each instance in which the Company analyzed or considered introducing or acquiring an OVD service (including in-footprint service or out-of-footprint service) and for each such instance:

- a. describe the timing of the analysis or consideration;
- b. describe the service, including content, projected prices, and customers to which it would be offered, including whether the intended customers would be existing customers, other customers within your footprint, and customers outside your footprint;
- c. discuss any decision made and the reasons for the decision or factors considered;
- d. identify all employees or agents of the Company involved in the analysis or consideration;
- e. provide all documents related to the analysis and consideration; and
- f. identify documents sufficient to support your answers for each (a), (b), (c), and (d) above.

Response to Request 12:

Charter views the availability of OVD services in its footprint as a positive that benefits Charter, its customers, and OVDs. Having the OVD content available for its subscribers through an integrated user interface helps Charter to obtain and retain customers who might otherwise choose satellite or telco/fiber broadband providers. As reflected in a **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

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[END HIGHLY CONFIDENTIAL INFORMATION] Currently, Charter's legacy Charter.net provides links to Netflix (and HBO Go and Epix) and has a search bar that allows customers to search for sought-after programming from these companies, as well as from Charter's linear video programming product.

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[END

HIGHLY CONFIDENTIAL INFORMATION]

Documents in support of the Company's response to this Request are provided on the enclosed hard drive in the folder "Request 12." *See also* documents provided in support of the Company's response to Request 23 on the enclosed hard drive in the Folder "Request 23." Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

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REQUEST 13

13. Submit all documents discussing: the CBS All Access service; Comcast's Stream service; DISH's Sling TV service; HBO Now; Sony Entertainment Network's Vue service; or any over-the-top video streaming service that may be offered by you or another person.

Response to Request 13:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 14

14. Produce all documents relating to the Company's consideration, analysis of, or decision to carry or not carry TWC SportsNet, TWC Deportes, TWC SportsNet LA, TWC Sports Channel (collectively TWC RSNs), including but not limited to all documents relating to negotiations with TWC, all communications with any other person relating to carriage of TWC RSNs, and analysis of the effect of carrying any of the TWC RSNs on the Company (such as any effect on subscriber acquisition or retention).

Response to Request 14:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 15

15. The Applicants state that “given the limited nature and quantity of programming affiliated with Liberty Broadband and Advance/Newhouse, neither has any incentive to take actions that conflict with New Charter’s best interests.” Public Interest Statement at 53 n.146. Explain this statement and describe in detail, and produce and identify all documents relating to, (i) the identity, nature and quantity of programming affiliated with John Malone, Liberty Broadband and Advance/Newhouse; (ii) each one’s ownership, control, or management of any programmer; (iii) each one’s incentive and ability, or lack thereof, to take actions that conflict with or support New Charter’s interests; and (iv) each one’s incentive and ability to withhold programming or particular rights to distribute programming from other MVPDs or OVDs in order to favor or protect New Charter or to increase New Charter’s sales.

Response to Requests 15(i):

Charter provides the following information, much of which is based on public reporting or other sources regarding third-party information, to the best of its knowledge.

The programming in which one or more of the listed person or entities may be deemed to have an attributable interest includes the following:

Discovery;

TLC;

Animal Planet;

OWN;

Investigation Discovery;

Discovery Family;

Science;

Destination America;

Discovery en Espanol;

Discovery Familia;

Velocity;

Discovery Life;

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the American Heroes Channel;

the Starz series of channels;

the Encore series of channels;

QVC and QVC Plus;

HSN;

iN DEMAND;

Bay News 9;

Central Florida News 13;

InfoMás; and

Bright House Networks Sports Network.

The nature of this programming is nationally distributed linear cable programming, except for iN DEMAND (which is a provider of pay-per-view and video-on-demand programming); Bay News 9 and Central Florida News 13 (which are Florida regional news networks), InfoMás (which is a Florida-focused Spanish-language cable news channel); and Bright House Networks Sports Network (which is a cable channel featuring Florida high school sports).

Response to Request 15(ii):

Charter has limited information regarding the listed entities' ownership, control or management of programmers. Based on that limited information, Charter is able to provide the following.

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As of July 31, 2015, Liberty Broadband has a 25.71% interest in Charter¹⁴³ and a 0.8% interest in TWC.¹⁴⁴ Liberty Broadband does not have an ownership interest in, manage, or have control of any other programmer, including Discovery Communications.

Dr. Malone is Chairman of the Board of Liberty Broadband, in which he owns shares constituting 8.7% of the equity and 46.6% of the voting power.¹⁴⁵ He is also Chairman of the Board of Liberty Interactive, in which Dr. Malone has in the aggregate a 36.6% voting interest and a 6.0% equity interest.¹⁴⁶ Dr. Malone has a 31.8% voting interest and a 6.0% equity interest in Starz, Inc., whose programming consists of the Starz series of channels and the Encore series of channels. He also has a 28.7% voting interest and a 4.8% equity interest in Discovery Communications, Inc. Finally, Dr. Malone is a Director of Lions Gate Entertainment Corporation, in which he holds a 3.3% voting interest and a 3.3% equity interest.¹⁴⁷

Advance/Newhouse owns preferred stock in Discovery Communications, Inc., which, if converted to common stock, would give Advance/Newhouse approximately 32.8% of the Series

¹⁴³ As set forth in Charter's response to Request 7, Charter does not itself hold an interest in any video programming networks other than local origination programming that is not sold to third parties.

¹⁴⁴ TWC's programming interests are identified in Exhibit G to the Applicants' Public Interest Statement.

¹⁴⁵ The voting and equity interests provided for Dr. Malone include, in addition to those interests held directly by Dr. Malone, any interests held by Leslie Malone, his spouse, The Malone Family Land Preservation Foundation, The Malone Family Foundation, John C. Malone June 2003 Charitable Remainder Unitrust, and the Malone LG 2013 Charitable Remainder Unitrust.

¹⁴⁶ Liberty Interactive has two tracking stocks, the QVC Group common stock and Liberty Ventures common stock, which are intended to track and reflect the economic performance of the QVC Group and Ventures Group, respectively. Dr. Malone has a 32.7% voting interest and a 5.5% equity interest in the Liberty Ventures tracking stock group and a 37.7% voting interest and a 6.2% equity interest in the QVC Group. The QVC Group owns the video and online retailer QVC, Inc., as well as 38% of the retailer HSN, Inc. Liberty Interactive's 1.9% interest in TWC has been attributed to the Ventures Group.

¹⁴⁷ Lions Gate owns 31.2% of EPIX, 50% of Pop, and 14.7% of Starz, Inc.

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A common stock and approximately 35.2% of the Series C common stock, representing approximately 24.9% of the voting power on all matters. Advance/Newhouse's preferred stock, subject to certain conditions, entitles it to designate three directors to the Discovery board, but does not give it voting rights for any other directors that are elected by the holders of the common stock. Advance/Newhouse also is entitled to 100% of the economic benefits of BHN (which owns Bay News 9, Central Florida News 13, InfoMás, and Bright House Networks Sports Network, as well as 5.3% of iN DEMAND).¹⁴⁸

Response to Request 15(iii):

Charter incorporates by reference its response to Request 16(a). As that response explains, numerous specific precautions prevent Liberty Broadband and Advance/Newhouse from taking improper actions, whether designed to harm or help Charter. As shareholders in New Charter, moreover, Liberty Broadband and Advance/Newhouse will have a strong incentive to ensure New Charter's success by taking actions that support New Charter's interests.

Response to Request 15(iv):

A strategy of withholding Discovery programming from rival MVPDs or from OVDs in order to benefit New Charter would not be profitable for entities in which Dr. Malone or Advance/Newhouse may be deemed to have an attributable interest. Any incentives for Dr. Malone and Advance/Newhouse to pursue such a strategy through these entities would exist only if the amounts that Dr. Malone and Advance/Newhouse would indirectly gain from such conduct (through increases in Charter's revenues and profits) exceed the amounts they would indirectly

¹⁴⁸ BHN is a wholly owned subsidiary of Time Warner Entertainment-Advance/Newhouse (TWE-A/N). TWE-A/N is a partnership between Advance/Newhouse and a subsidiary of TWC. The Bright House systems are managed on a day-to-day basis by Advance/Newhouse, which is entitled to 100% of the economic benefits of Bright House. TWC and its affiliates provide BHN with certain programming, engineering and technology services through a services agreement between the parties.

forgo through decreases in Discovery's affiliate and advertising revenues and profits. However, for any foreclosure strategy in which Dr. Malone and Advance/Newhouse might hypothetically engage, the amounts they would lose through decreases in Discovery's affiliate and advertising revenues would outweigh the gains they would reap through gains in New Charter's subscribership and, hence, revenues. This conclusion applies with even more force to the less highly-rated programming (such as Starz and HSN) in which Dr. Malone or Advance/Newhouse may be deemed to have an attributable interest.

Liberty Broadband does not own or control programming and thus cannot withhold programming or distribution rights thereto.

With respect to the ability to withhold programming or distribution rights in order to favor New Charter, Charter incorporates by reference its response to Request 16(b). As that response explains, corporate officers and directors are obligated to act in the best interests of the corporation, and not to favor the interests of another corporation (here, New Charter). Furthermore, the Commission's program access rules prohibit programmers that have an attributable interest in Charter (or New Charter) from discriminating against other MVPDs in the provision of their programming. *See* 47 C.F.R. §§ 76.1000-1004.

REQUEST 16

16. The Applicants state that “there are a number of specific precautions in place to ensure that Liberty Broadband and Advance/Newhouse cannot improperly influence New Charter.” Public Interest Statement at 54. Describe in detail, and produce all documents relating to, reflecting, considering, or describing any “specific precautions” that will exist following the consummation of the transaction ensuring that:

- a. Liberty Broadband and Advance/Newhouse cannot improperly influence New Charter; and
- b. John Malone, Liberty Broadband, and Advance/Newhouse will not withhold, or cause the withholding of, programming from MVPDs or OVDs in order to favor or protect New Charter or increase New Charter’s sales.

Response to Request 16:

Documents in support of the Company’s response to this Request are provided as Exhibits 16-1 to 16-6 on the enclosed hard drive in the folder “Request 16.” Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

Response to Request 16(a):

Liberty Broadband, a public company in which Dr. Malone holds a 46.6% voting interest,¹⁴⁹ owns 25.71% of Charter common stock as of July 31, 2015. Following the Transaction (assuming full exchange of the units of the New Charter operating partnership that will be held by Advance/Newhouse into shares of New Charter common stock), Liberty Broadband will own between approximately 17% and 19% of the New Charter common stock. Liberty Interactive, a public company in which Dr. Malone holds a 36.6% voting interest, will own between approximately 1.7% and 1.9% of the New Charter common stock. The actual percentage of New Charter stock that Liberty Broadband and Liberty Interactive will hold after

¹⁴⁹ The percentage holdings for Dr. Malone include shares held directly by Dr. Malone and his spouse, shares held by the Malone Family Foundation and the Malone Family Land Preservation Foundation, and shares held by two charitable remainder unitrusts, the John C. Malone June 2003 Charitable Remainder Unitrust and the Malone LG 2013 Charitable Remainder Unitrust.

the consummation of the transactions will depend on the extent to which some of the shareholders of TWC exercise the cash election. Liberty Broadband and Liberty Interactive have entered into a proxy agreement under which Liberty Broadband will vote Liberty Interactive's New Charter shares (subject to certain exceptions). In addition, Liberty Broadband will hold proxy rights granted by Advance/Newhouse that will provide Liberty Broadband with the right to vote (subject to certain exceptions) up to an additional 7% of New Charter common stock, capped in such a way that Liberty Broadband will not have the right in the aggregate to vote more than 25.01% of the New Charter common stock. Further details regarding the terms of the Liberty Broadband relationship, and the specific precautions in place to ensure that Liberty Broadband and Advance/Newhouse cannot improperly influence New Charter, are set forth below.

Background and current relationship:

On March 19, 2013, Charter and Liberty Media Corporation ("Liberty Media") announced that Liberty Media had entered into a stock purchase agreement with investment funds managed by or affiliated with Apollo Management, Oaktree Capital Management and Crestview Partners. The acquisition resulted in Liberty Media's beneficial ownership of approximately 27.3% of Charter's Class A common stock ("Charter stock").

Concurrently with the execution of the stock purchase agreement, Charter entered into a stockholders agreement with Liberty Media (the "March 2013 Stockholders Agreement") that, among other things, provided Liberty Media the right to designate up to four persons as nominees for Charter's 11-member Board of Directors, with up to one designated director to be nominated to the following board committees: Audit Committee; Nominating and Corporate Governance Committee; and Compensation and Benefits Committee. Each of these board

committees comprises three board members, so the remaining two members (*i.e.*, the majority) are directors not designated by Liberty Media. In addition, Liberty Media agreed not to increase its beneficial ownership in Charter above 35% until January 2016, and not above 39.99% thereafter. Exhibit 16-1 is a copy of the press release and the March 2013 Stockholders Agreement.

On November 4, 2014, Liberty Media spun off its interests in cable companies, including its holdings in Charter, to a new, publicly traded company, Liberty Broadband. In connection with the spin-off, Liberty Media and Liberty Broadband executed certain agreements, including a Reorganization Agreement, Services Agreement, and Facilities Sharing Agreement, which set forth the terms of the continuing relationship between Liberty Media and Liberty Broadband, and, in addition, entered into certain agreements (including the Assignment and Assumption Agreement) with Charter to assign Liberty Media's stockholders agreement with Charter to Liberty Broadband. Today, Liberty Media and Liberty Broadband operate as separate, publicly traded companies and neither has any stock ownership, beneficial or otherwise, in the other.

At present, the four members of the Charter Board of Directors nominated by Liberty Broadband are Dr. Malone; Gregory Maffei; Balan Nair; and Michael Huseby. Mr. Huseby serves on the Audit Committee; Mr. Maffei serves on the Compensation and Benefits Committee; and Dr. Malone serves on the Nominating and Corporate Governance Committee. As of May 23, 2015, Liberty Broadband beneficially held approximately 25.7% of Charter common stock. *See* Schedule 13D/A (Amendment No. 2), filed June 1, 2015, attached as Exhibit 16-2.

Proposed ownership and Board representation:

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Following the proposed transactions, including the purchase by Liberty Broadband of an additional \$5 billion of New Charter and the rollover of Liberty Broadband and Liberty Interactive shares of TWC into shares of New Charter, Liberty Broadband will own between approximately 17% and 19% of the New Charter common stock.¹⁵⁰ Liberty Interactive will hold own between approximately 1.7% and 1.9% of New Charter common stock, which it will obtain as a result of exchanging TWC common stock it currently owns for New Charter stock. Liberty Interactive has entered into a proxy under which Liberty Broadband will vote (subject to certain exceptions) its New Charter shares. *See* Proxy and Right of First Refusal Agreement, Liberty Broadband 8-K, dated May 29, 2015, attached as Exhibit 16-3. Pursuant to a Proxy and Right of First Refusal Agreement between Liberty Broadband and Advance/Newhouse (attached as Exhibit 16-4), for a period of five years after closing, Liberty Broadband will have the right to vote (subject to certain exceptions) up to an additional 7% of the New Charter shares (other than in connection with certain excluded matters for which no proxy will be granted by Advance/Newhouse to Liberty Broadband), which will continue to be owned by Advance/Newhouse; the actual amount of the shares to be voted under the proxy agreement will fluctuate with Liberty Broadband's direct ownership of New Charter shares, such that in no event will Liberty Broadband have more than 25.01% of the voting power in New Charter as a result of the proxy agreement. Since Liberty Interactive and Advance/Newhouse will each retain

¹⁵⁰ In the TWC merger, TWC stockholders will have the option to elect either of two packages of consideration for each TWC share held: (a) \$100 in cash and New Charter Class A common stock equivalent to 0.5409 shares of Charter's existing Class A common stock, or (b) \$115 in cash and New Charter Class A common stock equivalent to 0.4562 shares of Charter's existing Class A common stock. The actual percentage of New Charter stock that Liberty Broadband and Liberty Interactive will hold after the consummation of the Transactions will depend on which of these options are selected by stockholders of TWC. The percentages assume full exchange of the units of the New Charter operating partnership that will be held by Advance/Newhouse into shares of New Charter common stock.

the economic interest in the shares they own that are subject to the proxy, Liberty Broadband's economic interest in New Charter will not be impacted by either proxy agreement and will likely be around 17.5% at closing. Under a Second Amended and Restated Stockholders Agreement ("May 2015 Stockholders Agreement"), a copy of which is attached as Exhibit 16-5, Liberty Broadband will have the right to nominate up to three directors and Advance/Newhouse will have the right to nominate up to two directors of New Charter's 13-member Board of Directors.

Specific precautions:

In connection with the proposed Transaction, Charter, Liberty Broadband, and Advance/Newhouse have agreed to the terms and conditions of the May 2015 Stockholders Agreement. That Agreement contains a number of specific precautions to ensure that Liberty Broadband, Advance/Newhouse, and/or their affiliated Directors cannot improperly influence New Charter or cause New Charter to engage in conflicted transactions to benefit themselves and their affiliates at the expense of New Charter and its other stockholders.

First, under Section 2.1, at the closing date, Liberty Broadband's equity interests in New Charter cannot exceed 26% and Advance/Newhouse's equity interests in New Charter cannot exceed approximately 14% (assuming all the transactions are completed as currently anticipated at current share counts).

Second, under Section 2.6, Charter's current CEO, Mr. Rutledge, will be offered the position of CEO and Chairman of the Board of Directors of New Charter with a new five-year employment agreement to be negotiated prior to closing.¹⁵¹ As recognized in Section 3.2(j) of the May 2015 Stockholders Agreement, the Chairman of the Board shall be independent of

¹⁵¹ Mr. Rutledge currently has an employment agreement that expires on February 12, 2016, which is extendable for one year.

Liberty Broadband and Advance/Newhouse. Mr. Rutledge's intentions will clearly be aligned with maximizing the performance of New Charter only.

Third, Section 3.1 increases the size of New Charter's Board of Directors to 13. Liberty Broadband will be entitled to designate only three directors, which are anticipated to include Dr. Malone and Mr. Maffei, to the New Charter board. Advance/Newhouse is expected to designate only two directors to the Board based on its expected ownership levels at closing (and three directors at most if it decides to purchase a substantial amount of additional shares). These directors, even when combined, will constitute a minority of a 13-person Board of New Charter. The remaining eight directors (who are referred to in the May 2015 Stockholders Agreement and herein as "Unaffiliated Directors")¹⁵² will not be designated by Liberty or Advance/Newhouse, including the Chairman of the Board.¹⁵³ Thus, the size and composition of the New Charter Board will ensure that Liberty Broadband, Advance/Newhouse, Dr. Malone, and/or the other directors nominated by Liberty Broadband or Advance/Newhouse will not be able to control the Board of New Charter or cause New Charter to undertake conflicted transactions that do not benefit New Charter and its stockholders as a whole. As a further protection on top of the majority-independent board, moreover, Liberty Broadband and Advance/Newhouse are prohibited by the May 2015 Stockholders Agreement from acting in concert with respect to matters affecting policies and management of New Charter.

¹⁵² Except for Mr. Rutledge, the Unaffiliated Directors will be "independent" directors as defined by the applicable SEC and Nasdaq criteria. Under Section 3.3(b) of the May 2015 Stockholders Agreement, decisions of the Unaffiliated Directors exclude any directors who are not Independent of the Company, Liberty Broadband, and Advance/Newhouse.

¹⁵³ Section 3.1 provides that on the closing date, the Liberty Broadband and Advance/Newhouse Board nominees, as well as the remainder of the Board, will be nominated to New Charter's Board of Directors. The Nominating and Corporate Governance Committee is responsible for recommending a slate of directors, subject to approval by a majority of the New Charter shareholders at the Company's annual meeting. *See* discussion, *infra*, regarding the standstill provisions of the May 2015 Stockholders Agreement.

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Fourth, pursuant to Section 3.3(a), non-ordinary-course programming-related transactions involving either Advance/Newhouse and/or Liberty Broadband (or any of their respective affiliated entities) and New Charter must be approved by (i) a majority of the Unaffiliated Directors (*i.e.*, approval of at least four of the seven Unaffiliated Directors), with the Liberty Broadband-nominated directors and Advance/Newhouse-nominated directors recused from voting on these transactions; and (ii) a majority of the directors designed by the party without such a conflicting interest.¹⁵⁴

Fifth, Section 3.4 (a) provides that the Advance/Newhouse-nominated directors and Liberty Broadband-nominated directors will not serve on any committee formed for the purpose of evaluating a transaction or arrangement with them or their respective affiliated entities. Thus, to the extent there are “related party transactions,” there are effective limitations on the ability of the Advance/Newhouse-nominated directors and/or Liberty Broadband-nominated directors to participate in New Charter’s decision-making.

Sixth, Section 3.4(a) also provides that at least a majority of the directors on the Nominating and Corporate Governance Committee and on the Compensation and Benefits Committee will be Unaffiliated Directors. Thus, these two important committees for the composition of the board and the management of New Charter will remain in the control of the Unaffiliated Directors since decisions are made by a majority of the committee members.

Seventh, Section 4.2 provides for a number of protective standstill restrictions, including a prohibition against either Advance/Newhouse or Liberty Broadband (i) engaging or

¹⁵⁴ Transactions in excess of \$100,000 involving either Advance/Newhouse, Liberty Broadband, or affiliated entities, subject to this section of the May 2015 Stockholders Agreement, are further subject to the Related Party Transaction Policies and Procedures discussed, *infra*. In contrast, for unrelated party transactions (*e.g.*, with other programmers or OVDs), Board approval is required only if the value of the transaction exceeds \$100 million.

participating in any solicitation of proxies or consents relating to the election of directors not nominated by the Board of Directors; (ii) proposing any matter for submission to a vote of shareholders of New Charter or calling for a meeting of the shareholders; or (iii) taking any actions or making any public statements not approved by the Board of Directors seeking to control or influence the management, Board of Directors, or policies of New Charter other than as provided for in the May 2015 Stockholders Agreement.¹⁵⁵

In addition to the protective provisions in the May 2015 Stockholders Agreement, New Charter will adopt Charter's "Related Party Transaction Policies and Procedures" policy ("Related Parties Policy"), a copy of which is attached at Exhibit 16-6, which provides that any transactions likely to exceed \$100,000 in any calendar year with any "Related Party" are subject to a rigorous vetting process. Under the Related Parties Policy, New Charter's legal department will review each proposed transaction with a related party and submit the proposed transaction to Charter's General Counsel, who will in turn present the proposal to the Audit Committee of the Board of Directors of Charter (and New Charter), which must approve the transaction. The Audit Committee is tasked with taking "into account, among other factors it deems appropriate, whether the Related Party Transaction is on terms no less favorable than terms generally available to an unaffiliated third-party (*e.g.*, another MVPD) under the same or similar circumstances and the extent of the Related Party's interest in the transaction." Thus, there will be no ability for Liberty Broadband or Advance/Newhouse to control the decision process for transactions involving them or their respective affiliated entities.

¹⁵⁵ As a matter of Delaware law, moreover, the responsibility for managing the business and affairs of Charter resides with the Charter board, *see* Del. Gen. Corp. L. § 141(a), and other than the election of directors and few extraordinary matters, stockholders do not have the right to dictate decisions of the corporation.

As a matter of Delaware law, moreover, all New Charter directors will be constrained from undertaking conflicted transactions to benefit themselves or their affiliates at the expense of New Charter and/or New Charter's stockholders. Each director of a Delaware corporation has an unyielding fiduciary duty to protect the interests of the corporation and to act in the best interests of the corporation and all of its stockholders.¹⁵⁶ These fundamental and non-waivable duties require that in discharging their responsibilities as directors, each director must act in good faith, with an appropriate level of care, and place the interests of the corporation and all of its stockholders above any personal interest when making decisions that affect the corporation (the latter of which is referred to as the duty of loyalty, which includes the duty to act in good faith). The duty of loyalty requires each director to avoid personal conflicts of interest and act solely in the best interests of the corporation and its stockholders; in addition, each director must refrain from self-dealing or approving actions for the purpose of achieving personal financial gain.¹⁵⁷ Therefore, in carrying out their duties as New Charter directors, Dr. Malone and the other Liberty Broadband- or Advance/Newhouse-nominated directors will be required to place the interests of the corporation and all of its stockholders above their personal interests, and to act in the best interests of New Charter and all of its stockholders. If any of these Liberty Broadband- or Advance/Newhouse-affiliated directors seek to have New Charter undertake a transaction with one of their affiliates, in order to satisfy their duty of loyalty, they will be required to fully disclose the potential transaction to the remaining directors and act in the boardroom solely for the benefit of New Charter and all of its stockholders. Any such transaction that is not entirely fair to New Charter would be voidable unless it is either disclosed to, and approved by, a

¹⁵⁶ See *Guth v. Loft, Inc.*, 5 A.2d 503, 510 (Del. 1939).

¹⁵⁷ See *id.*; *Cede & Co. v. Technicolor, Inc.*, 634 A.2d 345, 361 (Del. 1993).

majority of the independent directors or disclosed to, and specifically approved in good faith by, a vote of the stockholders.¹⁵⁸

In addition, if Dr. Malone or any other Liberty Broadband- or Advance/Newhouse-nominated director breaches his or her duty of loyalty, that director will be unable to take advantage of the provision of the New Charter certificate of incorporation that exculpates and permits indemnification of directors for monetary damages arising from certain breaches of fiduciary duty; the director consequently will face personal liability for breaches of the duty of loyalty. Although section 102(b)(7) of the General Corporation Law of the State of Delaware (the “DGCL”) permits corporations to exculpate directors for monetary damages resulting from certain breaches of fiduciary duty as a director and section 145 of the DGCL permits corporations to indemnify directors, these protections do not extend to directors who breach their duty of loyalty to the corporation or its stockholders or do not act in good faith. A director also will not be entitled to exculpation under section 102(b)(7) of the DGCL for acts or omissions involving intentional misconduct or a knowing violation of law, or if the director derives an improper personal benefit.¹⁵⁹

Response to Request 16(b):

Information on any specific precautions in place to ensure that Dr. Malone, Liberty Broadband, or Advance/Newhouse will not undertake the actions referenced in the Request is outside Charter’s possession, custody, and control. Nonetheless, Charter again notes that directors and officers of Delaware corporations have unyielding fiduciary duties to act only in the interests of the corporations that they serve and the stockholders of those corporations, as detailed more fully in Charter’s response to Request 16(a). These fiduciary duties apply to all

¹⁵⁸ Del. Gen. Corp. L. §144(a).

¹⁵⁹ Del. Gen. Corp. L. §§102(b)(7), 145(a).

directors of Discovery, including Dr. Malone and any other directors who may be affiliated with Advance/Newhouse or Liberty Broadband. Thus, such directors cannot put the interests of New Charter ahead of the interests of Discovery.

Charter understands from publicly available materials, moreover, that Discovery has in place a written related person transaction policy. Each director of Discovery, including Dr. Malone and any other directors who may be affiliated with Advance/Newhouse or Liberty Broadband, is expected to be familiar with and to adhere to that policy, including provisions governing conflicts of interest. If a director of Discovery has an actual or potential conflict of interest (which includes being a party to a proposed “related person transaction”), the director must promptly inform Discovery’s CEO, the General Counsel and the chairperson of the Nominating and Corporate Governance Committee. The policy provides that directors should recuse themselves from any decision by the Board or a Board committee that involves or affects their personal, business or professional interests. The Discovery Nominating and Corporate Governance Committee or another independent committee of the Board designated by the Board is required to resolve any conflict of interest issue involving a director. No related person transaction may be effected by Discovery without the approval of the Nominating and Corporate Governance Committee or another independent committee of the Board designated by the Board to resolve the conflict of interest. In evaluating potential related person transactions, the Discovery Nominating and Corporate Governance Committee considers, among other factors, whether the transaction is proposed to be entered into on terms no less favorable to us than terms that could have been reached with an unrelated third party; the purpose of, and potential benefits to Discovery of, the transaction; and whether the transaction would be undertaken in Discovery’s ordinary course of business. Therefore, similar to the circumstances at New Charter, Discovery

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directors must undertake various procedures and disclosure requirements if they want Discovery to approve a transaction in which they have a different interest than other Discovery shareholders, and should recuse themselves from the Board's consideration and approval of any such transaction.

REQUEST 17

17. Describe, and provide documents sufficient to show, how the Company determines whether to carry a particular non-broadcast programming network on its own systems in what geographic areas and on which tiers that network would be carried, including the extent to which carriage decisions are made at the corporate level or by an individual system manager (include the identity of specific decision makers), and factors considered by the Company in making its carriage decisions. Explain and provide examples of how the Company evaluates potential replacements for any non-broadcast programming network, including, but not limited to: (i) the geographic areas in which it will offer the replacement non-broadcast programming network; (ii) the metrics used; and (iii) how the Company evaluates potential subscriber losses for not carrying a specific non-broadcast programming network in a market.

Response to Request 17:

In examining what new non-broadcast programming networks to carry, the Company considers its customers' desire for the programming, the cost of the programming, and the extent to which carriage of the non-broadcast programming network is required by the channel's owner if Charter intends to purchase other programming from the same programmer. To estimate customer desire (particularly for non-sports channels), Charter considers the content and brand of the new service, any available research regarding customer interest, customer requests, the extent to which the service has a differentiated, new idea that would translate to a linear television service, the likelihood that the channel will be able to sustain customer attention, and the extent of the programmer's experience. That said, these considerations reflect the Company's practice, as Charter does not have a formal written policy documenting its decisionmaking process with respect to the carriage of non-broadcast programming networks.

The Company makes carriage decisions [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION].

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Although RSNs are carried regionally rather than as part of a uniform national line-up, the decision regarding whether to carry them is based on the same criteria described above. The process is also the same, with the exception that **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]. In rare instances where a programmer ceases operation of a network, two outcomes are possible. Charter may either reclaim the bandwidth, or the programmer may instruct Charter (pursuant to a carriage agreement or within the context of a renewal negotiation) to carry an affiliated or successor programming network in its place. In the two instances in which Charter ceased carrying a non-broadcast programming network during the relevant period, UP TV and World Fishing Network, Charter reclaimed the bandwidth.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

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[END HIGHLY CONFIDENTIAL

INFORMATION]

REQUEST 18

18. List and describe all requests for program carriage that were denied and, for each request, state:

- a. the date of the request and the reasons why you denied the request; and
- b. the identity of the video programming at issue including the genre of the video programming (i.e., RSN, news, educational, general entertainment, etc.) offered.

Response to Request 18:

In instances where it opts not to carry a programming network, Charter **[BEGIN
HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]. Therefore, Charter's response to this Request is based upon reasonable inquiry of knowledgeable employees of the Company.

The Company is aware of **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] Charter is aware of **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

**[END
HIGHLY CONFIDENTIAL INFORMATION]**. Charter always remains open to carrying programming in the future even if carriage was at one point denied, provided Charter determines that there is adequate customer demand for carriage and carriage is otherwise supported by business considerations.

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With respect to programming networks that Charter does not carry, Charter assesses the sufficiency of customer demand informally by considering customer contacts via its call centers or Charter social media requesting carriage of the network, as well as actual disconnects where customers cite the absence of the network listed as the primary reason for leaving. In cases where Charter may not carry a network, but other MVPDs do so, Charter may also consider Nielsen data to see how a network is performing.

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[END HIGHLY

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UP TV

Charter ceased carrying UP TV, a general and family entertainment network, in third quarter 2014, [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

World Fishing Network

Charter ceased carrying the World Fishing Network in the third quarter of 2014, [BEGIN
HIGHLY CONFIDENTIAL INFORMATION] [END
HIGHLY CONFIDENTIAL INFORMATION]

REQUEST 19

19. Identify each instance, including the relevant dates, where a video programmer has discussed with the Company or an officer, director, or executive of the Company raising, threatening to raise, or having raised, a program carriage complaint as a means to obtain carriage of video programming, and separately for each type of video programming (i.e., standard or high definition), describe and produce documents sufficient to show:

- a. the nature of the dispute or issue;
- b. the persons involved in the dispute; and
- c. how and whether the dispute or issue was resolved. To the extent the dispute was resolved or settled, explain whether the resolution or settlement required you to provide program carriage to the complaining party, and produce one copy of each agreement or
- d. settlement that ended the dispute.

Response to Request 19:

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION].

Therefore, Charter's response to this Request is based upon reasonable inquiry of knowledgeable employees of the Company.

Charter is not aware of any instance or discussion since July 24, 2013, in which a video programmer has raised or threatened to raise a program carriage complaint as a means to obtain carriage of video programming.

REQUEST 20

20. Identify each communication between the Company and any other MVPD regarding distribution of any video programming other than video programming owned by a party to the communication. Describe each communication, including subject matter, information provided by the Company, received by the Company, any other MVPDs mentioned, and future plans or strategies discussed in the communication. Provide all documents containing or reflecting any communication between you and any other MVPD relating to the distribution of any video programming, including but not limited to RSNs, other than video programming owned by a party to the communication.

Response to Request 20:

Per agreement with Commission Staff, Charter is excluding any communications between Charter and TWC, BHN, or Comcast Corporation regarding the Transaction or the transactions proposed in MB Docket 14-57.

As to other potentially responsive communications, Charter notes that the Request is very broad in its nature and virtually all-encompassing in its scope. However, in order to respond to the Request, Charter interviewed the current programming professionals at Charter. After a reasonable inquiry, Charter has identified the following communications:

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

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[END HIGHLY CONFIDENTIAL INFORMATION]

Charter is not aware of any other discussions between Charter and another MVPD during the relevant time period that involved Charter's or another MVPD's actual or future plans regarding the distribution of video programming not owned by either party, or as to the prices, packaging, plans for deletion of content, plans for the deletion or addition of systems, possible joint negotiation of an agreement for carriage of video programming or the strategies that either Charter or another MVPD intended to undertake in connection with negotiation of a video carriage arrangement.

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 21

21. Identify each instance since January 1, 2010, in which the Company obtained a reduction in the per-subscriber fee paid for any programming (including through the acquisition or sale of or affiliation with any MVPD or video programming network) and for each such instance: a) describe the circumstances; b) state whether the Company passed through cost savings to residential subscribers as lower monthly fees, moving the network to a less costly tier, or in any other way; and c) produce all documents discussing cost savings, including how they were passed through to subscribers.

Response to Request 21:

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

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[END HIGHLY

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Charter notes that its programming costs have had annual increases overall of approximately 10% in both the 2013-2014 and 2014-2015 time periods. Given the magnitude of these increases, the occasional and small reduction in the few programming channels referenced above does not permit Charter to lower its prices. Rather, these very limited “cost savings” make a small contribution to Charter’s attempts to keep consumer prices as low as realistically possible in the face of rapidly rising programming costs.

REQUEST 22

22. Submit all documents relating to any plans of, interest in, or efforts undertaken by the Company or any other person for any acquisition, divestiture, joint venture, alliance, or merger of any kind involving the sale of any relevant service other than the Transaction. Describe, and identify documents sufficient to show each instance when the Company attempted to partner with another MVPD to achieve joint objectives, including but not limited to, attempts to launch or deploy a coordinated or joint OVD service, business services, reciprocal access to Wi-Fi networks, out of home data access service, or mobile wireless service (e.g., sales agent, reseller, mobile virtual network operator). In the description, state the results of each instance and the reasons for its success or failure.

Response to Request 22:

Charter has attempted to partner with another MVPD to achieve joint objectives in several limited contexts.

Carrier Agreements and National Accounts Agreements

As a relatively routine matter, Charter has worked with other MVPDs through standard carrier agreements, as well as national accounts agreements, with Comcast, Cox, TWC, and others to provide business services to larger enterprise customers. These agreements are similar to arrangements Charter has in place with traditional common carriers—*e.g.*, Verizon, AT&T, CenturyLink, etc.¹⁶⁰

Carrier agreements are common among cable MVPDs because (among other reasons) cable MVPDs face difficulties competing with incumbent telcos for business services customers. This problem is especially pronounced for larger enterprises, which often have multiple locations, not all of which are within any individual cable MVPD's footprint. For this reason, the large-enterprise segment—a substantial and growing market—traditionally has been

¹⁶⁰ Charter also used to engage in so-called “fiber swaps” with other MVPDs. For example, Charter would allow another provider either to overlash their fiber onto a Charter plant or to use fiber(s) within certain of Charter's fiber routes for the transmission of such provider's traffic.

dominated by large incumbents like Verizon and AT&T.¹⁶¹ In order to try to be more competitive, cable MVPDs sometimes enter agreements with each other to provide circuits (dedicated lines or partial private networks) for individual customers or locations, as well as ancillary circuit-management services.¹⁶² For example, as has been publicly reported, Comcast has set up a new business service division, the “Enterprise Services” unit within the Comcast Business division, to sell broadband, WiFi, Ethernet, and other business services to large companies.¹⁶³ Comcast has expressed its intent to serve business customers in areas where it is absent, such as Los Angeles and New York City, in partnership with other providers.¹⁶⁴

This approach, however, has numerous drawbacks. A partner model creates high transaction costs, as multiple networks and personnel must be coordinated, and these costs impact the price at which these services can be offered. Additionally, the customer’s price may be unattractive because the retail price includes the profit margin of the wholesale supplier as well the retail service provider (so-called double marginalization). Services provided through a partner model are also relatively unappealing to customers from an operational standpoint. Using Type II or Type III circuits often leads to operational complexity due to the off-net component that extends installation and repair intervals. Customers’ desire for responsiveness and transparency drive them to prefer a single network, with a single network operations center, a single set of technical standards, and a single point of contact for customer support—benefits

¹⁶¹ See Zacks Equity Research, Analyst Blog, *Comcast Plans To Set up New Unit for Large Enterprises* (Sept. 16, 2015), <http://www.zacks.com/stock/news/190267/comcast-plans-to-set-up-new-unit-for-large-enterprises>.

¹⁶² Since November 2014, Charter and Comcast have been parties to a national account agreement.

¹⁶³ Reuters, *Comcast Creates Enterprise Services Unit To Target Big Business*, CNBC Online (Sept. 16, 2015), <http://www.cnbc.com/2015/09/16/comcast-creates-enterprise-services-unit-to-target-big-businesses.html>.

¹⁶⁴ See *id.*

that Charter, TWC, and BHN operating as independent companies cannot provide to many businesses. Additionally, when Type II circuits are utilized, performance data for the off-net component of the circuits, which are increasingly being offered to the end-user customer via portals, often are masked or have less fidelity.

Advertising Interconnects

Cable interconnects joined, owned, controlled, or managed by Charter provide a platform for advertisers to reach households served by multiple MVPDs in a DMA. Charter offers cable spot advertising in thirty- or sixty-second intervals via these cable interconnects, and advertisers can purchase spots reaching either the entire cable interconnect (*i.e.*, the entire DMA), or a subset thereof. Advertisers wishing to acquire spot advertising across a larger region, including national spot advertising, can contract with NCC Media, a third-party ad representation company, or contract directly with individual interconnects. NCC Media is Charter's exclusive national advertising sales representative for the placement of certain national spot advertising on video cable programming services carried on the vast majority of Charter's systems.¹⁶⁵

Advertising Representation agreements with other MVPDs inside of DMA's allow Charter and its affiliates to be better positioned for sales success in a fragmented media environment. Consistency of ad offerings across a DMA gives advertisers more effective campaign solutions and more efficient transaction efforts. Local cable is therefore positioned as a credible alternative to numerous local TV affiliate competitors in DMAs.

¹⁶⁵ Charter is providing three representative exemplars of advertising interconnect agreements. In the New Orleans market, for example, Cox represents Charter for ad sales purposes only. In the Santa Barbara market, Charter represents Cox for ad sales purposes only. And in the last agreement, Charter agrees to handle the ad sales function on behalf of Packerland. Charter is also providing a copy of its most recent representation agreement with NCC. Charter provided further information and documents regarding its cable interconnects in response to the FCC's 2014 RFI Requests 27 and 28.

Programming Interest with Comcast

Between 1999 and 2013, Charter and Comcast jointly owned CSS, which was a regional sports network. CSS was launched in 1999, and it operated as “Charter Sports Southeast” in Charter’s footprint and “Comcast Sports Southeast” in Comcast’s footprint. Initially, Comcast owned approximately 72% of the network, and Charter owned the remaining 28%. By 2011, Charter’s interest in the network had fallen to approximately 19%; it further diminished to 17.9% on January 1, 2012 and to 17.7% on January 1, 2013. On August 1, 2013, Comcast acquired Charter’s remaining share of the network.

Charter’s interest represented a small investment that was accounted for via the cost method, and, as such, Charter received no revenue from the channel’s operations. CSS was managed by Comcast, which also had full governance rights. Since divesting its partial interest in CSS, Charter has not retained any information that would be responsive to this Request. CSS was taken off the air and operations were closed on June 1, 2014 after ESPN acquired the rights to and began airing Southeastern Conference (“SEC”) programming, which had generated a key part of CSS’ ratings and revenues.

Set-Top Box Security

Charter engaged with other MVPDs in the CableLabs development process for CableCARD security. CableCARDS were designed to provide security for retail set-top boxes to protect against theft of service and to enforce certain restrictions required by the holder of the copyright in the video content (*e.g.*, no copying of early release video-on-demand movies). The CableCARD solution was designed as a hardware (as opposed to software) solution for cable television technology and devices designed to operate with cable television technology, rather than for other networks and consumer electronics technologies.

Charter is currently deploying a downloadable security solution to address cable theft. It has worked to coordinate this downloadable security solution technically with Cablevision, the only other cable operator to have deployed a downloadable security solution, in order to promote interoperability of the downloadable security solution.

IP-Related Joint Activity

From time to time, Charter has formed joint defense groups with other MVPDs that are the targets of related patent lawsuits. The extent to which Charter and another MVPD (or multiple MVPDs) will be able to enter such an arrangement depends, on a case-by-case basis, as to the level of similarity between the technology used by Charter and the other MVPD(s), and the risk tolerance or interests of the relevant MVPDs in pursuing various litigation strategies—*e.g.*, litigating, settling, etc. In other words, not every patent litigation involving Charter and at least one other MVPD results in a joint defense arrangement. These joint defense scenarios are always one-off arrangements to deal with a specific litigation; any joint arrangement expires upon settlement, dismissal, or other resolution. Charter is currently in the process of entering into such an arrangement in response to several patent lawsuits filed by the same plaintiff against many of the largest MSOs.

The Cable WiFi Alliance

There have been ongoing discussions with [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] regarding Charter's entry into the Cable WiFi alliance. Charter's integration with [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] under the WiFi Alliance has already begun, and the internal teams are actively working together on building and validating an initial sign-in process and portal. Charter has also loaded its list of access points into the CableLabs Wireless Service

Locator (“WSL”) system and is actively sharing access point lists with [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION], and vice versa.¹⁶⁶ The Company is also [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]¹⁶⁷

Furthermore, [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]. This is a necessary prerequisite to Charter’s entry to the Cable WiFi Alliance.

As for the other CableWiFi participants:

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

¹⁶⁶ CableLabs is (among other things) a non-profit research and development consortium that is dedicated to creating innovative ideas that significantly impact cable operators’ business. CableLabs membership is comprised of the major cable operators, including Charter. The CableLabs WSL system provides a platform for member MSOs to load their WiFi hotspot location information and defines rules regarding roaming partner data access.

¹⁶⁷ The Transaction will result in substantial public interest benefits in this area. After closing, Charter will not need separate, individual WiFi network service agreements with TWC or BHN. Moreover, joint network management will result in efficiencies and improved service integrity and delivery relative to what could be achieved through interconnection of separately managed networks.

[END

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Charter does not expect integration with these providers to move quickly until Charter deploys more out-of-home WiFi access points. The limited scale of Charter's existing network appears to have delayed integration for the time being, and, as discussed at greater length in response to Requests 3 and 74, further deployment by Charter may not be economically justifiable absent the scale that would result from this Transaction. Similarly, the ongoing conversation among current participants about how to bring an actual structure to the CableWiFi arrangement may also be slowing negotiations. Finally, until the pending Transaction is resolved, these four providers may have adopted a wait-and-see posture toward further integration with Charter.

Mobile Strategy

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY

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Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 23

23. Describe, and produce all documents relating to your:
- a. plans with respect to television set-top boxes;
 - b. plans to enable or permit the use of third party applications on set-top boxes;
 - c. criteria for determining which third party applications to permit or enable;
 - d. plans for developing set-top-boxes, programming guides, recommendation software, and user interface systems; and
 - e. policies and plans to integrate OVDs into the Company's set-top box, programming guide, or recommendation software, including your criteria for determining which OVDs to integrate.

Identify documents sufficient to support each of your answers.

Response to Request 23(a)-(e):

As part of its general philosophy of providing consumers excellent services at competitive prices, Charter recognizes the importance of providing its customers with access to a wide range of content—including content from third-party providers such as OVDs—via tools that are easy to navigate and update. Charter's plans related to its set-top boxes, programming guide, recommendation software, and user interface are based on this philosophy. Charter is in the process of deploying a number of innovations that improve functionality while significantly reducing CPE input prices, thereby improving the customer experience while reducing prices.

Worldbox: For example, Charter recently unveiled Worldbox—an innovative set-top box that integrates with a new user interface. Worldbox utilizes a downloadable conditional access system and digital rights management platform. This enables Charter to source set-top boxes that lack costly proprietary security systems. Deployment of the Worldbox system throughout New Charter's territory will enhance the user experience and enable the more cost-efficient

provision of service. Charter's downloadable security solution also supports the development of devices manufactured by third parties.

Charter intends to replace its installed base of traditional set-top boxes with the Worldbox over time. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] Worldbox will be rolled out throughout the service areas of Charter, TWC, and BHN after the Transaction is consummated. The planned rollout is discussed at greater length in response to Requests 92 and 105.

Spectrum Guide: Charter's new cloud-based interface, Spectrum Guide, provides the user experience on Worldbox as well as two-way legacy boxes, regardless of age. Because Spectrum Guide's functionality is cloud-based, consumers will benefit from its advanced features using their existing two-way set-top boxes without the wait, disruption, and expense of a new set-top box or a truck roll to the home to have a technician install a new set-top box. Spectrum Guide can be updated from the cloud at almost no cost whenever an improvement is available. This capability will offer significant consumer benefits over the legacy method of infrequent updates and even less frequent box set-up replacements. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] For example, Charter just announced on October 12, 2015 the release a Spectrum Guide TV App on Roku devices.

Spectrum Guide is highly OVD-friendly. Charter has been **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

**[END HIGHLY CONFIDENTIAL
INFORMATION]**

In addition to providing streamlined access to Charter customers, the Spectrum Guide will benefit third parties such as OVDs by making integration of third-party apps into the Guide easier, faster, and cheaper. Charter designed the guide to use **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

Because it uses common programming languages, OVDs and other third parties can easily design applications to integrate into Spectrum Guide and/or offer them in Charter's app store.

Like Worldbox, Spectrum Guide will roll out **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] Within the next month, Charter plans to deploy the guide in its largest market—St. Louis—as well as Reno. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] Spectrum Guide will be deployed across New Charter's footprint, beginning with all-digital systems and continuing as systems are digitized.

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Criteria for Third-Party Integration: In developing Spectrum Guide, Charter welcomes third-party developers willing to partner to make new content available via the guide. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

As discussed in greater detail at Request 12, Charter views the integration of OVD services and content as a positive that benefits Charter, its customers, and OVDs. Charter's intent is **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] In addition to the criteria identified above, Charter will **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY

CONFIDENTIAL INFORMATION]

Documents in support of the Company's response to this Request are provided on the enclosed hard drive in the folder "Request 23." *See also* documents provided in support of the Company's response to Request 12 in the enclosed hard drive in the folder "Request 12." Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 24

24. The Applicants note that “DISH recently announced a deal to enable access to Netflix directly from its set-top boxes,” and that “[s]uch integration of OVD services creates a competitive advantage and will provide even more incentive for us to provide our customers with access to OVD services.” Public Interest Statement at 51. Identify, and produce all documents relating to, each OVD service that the Company’s subscribers are able to access, or that the Company has engaged in negotiations to provide access to, through “Spectrum Guide” or through any other means on a “Worldbox” device. For any OVD service for which the Company declined to provide the Company’s subscribers access through the “Spectrum Guide” interface or a “Worldbox” device, state the reason that the Company declined to provide such access.

Response to Request 24:

See Response to Request 12 and Exhibit 12. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

Integrating an OVD service in the Spectrum Guide requires significant technical work and resources, and Charter has **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] To this point, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

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[END HIGHLY CONFIDENTIAL INFORMATION]

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 25

25. Describe, and produce all documents relating to, reflecting, or describing, the Company's pricing of integrated and unintegrated cable modems, and billing policies and practices, in effect at any time between January 1, 2012 and the present.

Response to Request 25:

Under Charter's New Price Packaging ("NPP"), which was introduced in June 2012 and which governs [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] of customers' bills, Charter does not charge customers a fee for cable modems.

From 2005 or earlier until June 2012, Charter charged customers a line-item rental fee for Charter-provisioned cable modems and did not charge a fee for the use of cable modems that subscribers brought with them to Charter's Internet service. Since the introduction of NPP, a small subset of customers have chosen not to switch to NPP and to keep their legacy Internet access service, and these customers continue to pay a monthly rental fee if they use a Charter-provisioned cable modem, but do not pay such a fee if they use their own cable modem.

Subscribers to Charter's legacy services may opt into NPP at any time.¹⁶⁸

¹⁶⁸ Charter has interpreted the use of "integrated" and "unintegrated" in this Request to refer to Charter-provisioned and privately owned cable modems, respectively. If the Commission instead intended to ask for pricing for integrated cable modem-routers relative to pricing for stand-alone cable modems, the answer is as follows: From January 1, 2012 or earlier, until June/July 2012, Charter offered customers an integrated cable modem-router as a Home Networking product, with a corresponding line-item fee of \$9.99/month. Charter discontinued offering this product in mid-2012.

REQUEST 26

26. Separately for each cable modem billing policy or practice identified state:
- a. when the Company established the policy or practice and the reasons for the policy or practice and altering or abandoning any prior policy or practice;
 - b. any change to the policy or practice that has occurred at any time since January 1, 2012, including but not limited to, the date when the change in policy or practice took effect and the reasons for the change; and
 - c. all effects that the transaction, if consummated, would have on any policy or practice.

Response to Request 26:

In 2005 or earlier, Charter adopted a rental fee policy for the use of Charter-provisioned cable modems to access Charter's Internet service. In 2012, as explained above, Charter launched NPP¹⁶⁹ that eliminated the modem fee. Existing customers were encouraged to switch to NPP, and since then new customers are offered only NPP. However, no customer was forced to switch to NPP. Charter's policy for those legacy customers who have chosen not to adopt NPP has not changed, although the monthly rental fee for use of a Charter-provided modem has gradually increased (the fee was \$7/month as of January 2012 and is currently \$9/month).

Charter eliminated the modem fee in NPP for two primary reasons. First, the elimination of the line item simplified subscribers' bills by integrating various component services into a simple bottom line at no additional cost to the consumer. This simplification benefits not only consumers but also Charter, in terms of reducing back-office costs. Second, and more importantly, providing cable modems at no charge to subscribers helps foster and further Charter's goals of providing and managing a more efficient network and offering better delivery

¹⁶⁹ NPP emphasized the triple play products of video, Internet and telephone service and combined its most popular services in core packages at a fair price. The benefits of NPP to Charter and to subscribers are discussed at greater length in response to Request 73.

of services. When Charter introduced NPP, it was simultaneously in the process of increasing the speeds available to many subscribers from 15 Mbps to 30 Mbps (and later to 60 Mbps), but in order for subscribers to take advantage of these faster speeds, they needed more advanced cable modems. Pursuant to NPP, Charter reached out to customers with legacy cable modems and offered to upgrade them, at no charge. This facilitated the removal of certain legacy modems that could cause harm to the network or neighboring services and activities. Here too, the policy benefits consumers as well as Charter.

Since NPP was launched in 2012, there have been no other changes to the policies or practices with respect to Charter's cable modem billing.

In its Public Interest Statement, Charter promised that within 12 months of closing, New Charter will market services consistent with the NPP model, including its based 60 Mbps broadband service, to consumers in TWC and BHN's areas where the cable systems are all-digital at closing. In TWC and BHN's areas that are not all digital, New Charter will make those offerings available once the systems are all digital. New Charter plans to allow those subscribers to opt into a rebranded Spectrum Price Packaging ("SPP"): those that do so would not pay a monthly cable modem rental fee, but instead, like current Charter NPP subscribers, would pay a simplified monthly price for Internet service. Those who do not opt into SPP would stay on their current legacy plans, including any monthly rental fee for use of a cable modem. In the absence of this Transaction, TWC and BHN subscribers will not benefit from the simplified monthly pricing for Internet service that eliminates the monthly rental fee for cable modems.

REQUEST 27

27. State whether, at any time since January 1, 2012, you have included a separate line-item fee for a cable modem that the Company leases, sells, or otherwise provides to Internet access service subscribers on the subscriber's bill. If so, state the amount and frequency of the fee for each cable modem model and provide documents sufficient to show such charges as they were reflected on subscriber bills.

Response to Request 27:

As discussed in Charter's response to Request 26, *supra*, from at least 2005 through June 2012, Charter included a separate line item fee for customers who rented cable modems. During that same period, Charter did not include such a line item fee for customers who used their own modems. In June 2012, Charter launched NPP. Approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of Charter customers are currently on NPP, and there is no modem charge for these customers with NPP Internet. Charter's subscribers to the legacy Internet service—those few customers who have chosen *not* to take NPP) continue to have a monthly line-item fee if they use a Charter cable modem; subscribers to this legacy Internet service who use their own cable modems do not pay a cable modem fee.

The amount Charter charges for modems those few customers who choose not to take the packaging that requires no modem fee has gradually increased over time, from \$7/month in 2012 to \$9/month today.

Documents in support of the Company's response to this Request are provided in Exhibit 27 on the enclosed hard drive in the folder "Request 27."

REQUEST 28

28. State whether, at any time since January 1, 2012, you have provided any service discount or account credit to an Internet access service subscriber that uses a non-Company-provisioned cable modem, and if so, the amount and frequency of that discount or credit. Provide documents sufficient to show such charges as they were reflected on subscriber bills.

Response to Request 28:

Charter has never provided any service discount or account credit to an Internet access service subscriber that used a non-Company provisioned cable modem. Prior to June 2012, however, customers who used their own modem were not charged a cable modem rental fee. Current subscribers to Charter's legacy Internet access service (*i.e.*, those who have not opted into NPP) who use Charter cable modems continue to be charged a rental fee, whereas those who use their own cable modem are not charged a cable modem rental fee. Any subscriber who is being billed under Charter's NPP does not pay a monthly rental fee for a cable modem regardless of whose modem is used.

REQUEST 29

29. Produce all documents presented to or in the possession of your officers, directors, or executives relating to subscriber access to edge provider content that reference: (i) congestion experienced while using the Company's Internet access service; (ii) whether, how and how much the quality of service of the Company's Internet access service affects subscriber chum and retention and the acquisition of new subscribers; and (iii) how subscriber demand for edge provider services affects demand for Internet access service.

Response to Request 29:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 30

30. Describe, and produce all documents relating to the policies, procedures and practices the Company follows in processing trouble or incident reports from edge providers or subscribers concerning the Company's Internet access services.

Response to Request 30:

Charter provides subscribers with information and tools to resolve technical issues with their Internet access service before an issue rises to the level of a trouble report. As an initial matter, subscribers can try to resolve issues by consulting a list of potential problems and solutions, located on the Company's website at <http://www.charter.net/support/>. Subscribers with technical issues can also contact the Customer Operations team via Charter's toll-free number, or online using the chat function on Charter's website. The Company also offers a tool in which subscribers can attempt to resolve technical issues with an automated customer care representative.

If the automated customer care tool is not successful, or if the subscriber declines this option, the call will be transferred to a live representative. The representative will then troubleshoot the issue over the phone, and if the issue persists, determine the next steps that Charter should take to resolve the problem. Next steps include escalating the trouble report to a technician in the field or, if it is a network-related issue, to an engineering team.

Where an issue regarding the Company's Internet access service affects multiple subscribers, the Company has procedures in place to inform those customers who call that an outage has been detected in their area. Subscribers who call in can choose to be notified by Charter via phone when the issue has been resolved.

To resolve edge providers' issues with the Company's Internet access services, Charter has staff designated to address edge providers' trouble reports. This designated staff is reachable at PriorityEscalationTeam@charter.com. Contact information for this team, as well as Charter's

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network management practices, is available to customers and edge providers alike on Charter's web site at <https://www.charter.com/browse/content/network>. To date, no edge provider has contacted Charter through this email address to report an issue with the Company's Internet access services. To the extent an edge provider reports an issue in the future, the Company would seek to determine the steps necessary to resolve the problem.

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 31

31. Submit:
- a. one copy of the Company's Form 477 data filing for December 2013, June 2014, and December 2014, and, for the duration of this proceeding, supply any updates to these data or any new data filings; and
 - b. one copy of the Company's December 2013 and June 2014 State Broadband Initiative data and, for the duration of this proceeding, any updates to these data or any new data filings.

Response to Request 31a:

Charter's Form 477 data filings for the requested time are being provided on the enclosed hard drive in the folder "Request 31a," organized within additional subfolders.

Response to Request 31b:

Charter's State Broadband Initiative filings for the requested time periods are being provided on the enclosed hard drive in the folder "Request 31b," organized within additional subfolders.

REQUEST 32

32. Describe the Company's former, current and future plans to enter term contracts with subscribers or impose early termination fees in connection with cable services, whether sold as bundled services or standalone services, including:

- a. description of any term contracts or early termination fee policies implemented Company-wide;
- b. a description of all contract and early termination fee test or pilot programs conducted by the Company;
- c. a description of the results and findings of these test or pilot programs, including any increase in contract adoption by customers in test or pilot program areas versus those not in such areas;
- d. a description of any future term contract or early termination fee test or pilot programs; and
- e. a description of any planned Company-wide initiatives to use contracts or early termination fees.

Response to Request 32:

Prior to June 2012, Charter's offerings included price-guaranteed term contracts with residential subscribers for stand-alone and bundled services—for example, a two-year contract for bundled services that would cost \$95/month in the first year and \$105/month in the second year. The terms were always offered at promotional rates discounted below standard competitive rates. These contracts featured early termination fees.

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[END HIGHLY CONFIDENTIAL

INFORMATION] At that time, it stopped offering contracts with early termination fees. And following the introduction of NPP, customers on existing contracts were encouraged to migrate to NPP without paying a termination fee. Since the launch of NPP in June 2012, Charter has not offered residential contracts with early termination fees. Moreover, any early termination fee

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provision in a contract entered into before June 2012 has since expired. Currently, Charter has no residential subscribers subject to an early termination fee.

Since the launch of NPP, Charter has **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

REQUEST 33

33. For each relevant service, standalone services and bundled services, produce (i) one copy of all current selling aids and promotional materials; and (ii) all documents discussing marketing or advertising plans and strategies.

Response to Request 33:

Documents responsive to this Request are being provided on the enclosed hard drive in the folder “Request 33.”

REQUEST 34

34. Produce all documents created or received by the Company relating to or discussing the Company's or any person's prices; pricing plans; pricing policies; pricing lists; pricing forecasts; pricing strategies; pricing analysis; introduction of new pricing plans or promotions; bundled pricing, including analysis of the profitability of bundles and their impact on customer retention; and pricing decisions relating to each relevant service.

Response to Request 34:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 35

35. Describe, and produce all documents relating to, data caps and usage-based pricing of residential broadband services, including but not limited to: (i) data caps imposed for each tier of Internet access service in any relevant area, the criteria used for imposing the data caps and the criteria used to set the data cap thresholds; (ii) the size of the data cap and the price of Internet access service both with and without the data cap; (iii) the Company's use of usage-based pricing (UBP) and the rationale for the Company's imposition of UBP; (iv) non-broadband Internet Access data services, including video programming subject to, and not subject to, a data cap; (v) the cost, detriments and benefits to the Company and to the Company's residential subscribers of offering Internet access service with data caps or UBP, including the effect of the data caps or UBP on the Company's network; (vi) the effect of the data cap or UBP on customer's behavior (e.g., downloading of OVD content, purchase of the Company's PPV and VOD services); (vii) the effect of the data cap or UBP on competition for any relevant service and persons who provide video programming; (viii) whether different data cap or UBP trials are planned, and if so, a description and timetable for each; and (ix) the findings or results of all trials, studies, or research related to data caps or UBP.

Response to Request 35:

Charter does not impose data caps or employ any usage-based pricing ("UBP") practices on its residential or commercial Internet access services. Charter customers have uncapped access to the Internet for all types of lawful content, including video services. [BEGIN

HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY

CONFIDENTIAL INFORMATION] This has been Charter's practice for several years. In 2014, Charter updated its Residential Internet Acceptable Use Policy ("AUP")¹⁷⁰ to reflect this practice and eliminated the data limits that had previously been in a section entitled "*No Excessive Use of Bandwidth.*"

¹⁷⁰ See Charter Internet Acceptable Use Policy – Residential Customers, Version 14.1, Exhibit 32-1 to Sept. 11, 2014 Response (*available at* www.charter.com/browse/content/residential-aup) (published on Aug. 1, 2014 and effective as of Oct. 1, 2014).

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Response to Request 35(i)-(ii):

Although Charter does not impose or enforce data caps, Charter's former AUP¹⁷¹ had, in the "excessive use of bandwidth" section, enumerated the following monthly data limits:

<u>Internet Service Tier</u>	<u>Usage Limit (Gigabytes)</u>	<u>Cost of Tier (as of Jan 2012)¹⁷²</u>
Lite or Express	100	\$19.99 (Lite); \$44.99 (Express)
Plus or Max	250	\$54.99 (Plus); \$69.99 (Max)
Ultra100	500	\$99.99

The limits were designed to reflect a level of usage beyond the needs of the average customer subscribing to the service tier and to provide Charter the flexibility to manage a customer's extreme Internet use in order to protect the network and ensure adequate bandwidth for all customers. As described in the response to Request 35(iii), *infra*, the only time these usage limits were enforced was during a limited trial between December 2010 and January 2012, and then only with respect to a small number of Charter customers.

Response to Request 35(iii):

The only time Charter enforced the usage limits listed in response to Parts 35(i) & (ii) above was during a trial that ran between December 2010 and January 2012 **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

¹⁷¹ See Charter Internet Acceptable Use Policy – Residential Customers, Version 14.0, Exhibit 32-2 to Sept. 11, 2014 Response (legacy residential Internet AUP that was already in place during the trial time period and continued through Sept. 30, 2014). Charter did not, at the time, offer an Internet tier to which the AUP limits did not apply.

¹⁷² The tiers listed in this response indicate Charter's national pricing applicable to its residential Internet plans in most markets. Any regional variation would have been unrelated to data caps as the legacy policy applied to all residential Internet service tiers offered.

The rationale for this trial was to assess the use of the policy as a means to ensure there was adequate bandwidth for all customers to use Charter's Internet service. Internet bandwidth and network resources are not unlimited, and utilization of a disproportionate amount of network resources by a small number of customers can have a detrimental impact on its other customers. At that time, fewer than **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** of all residential Charter Internet customers were exceeding the bandwidth usage thresholds for their particular tier in any given month. Typically, users would exceed these thresholds by engaging in activities that would violate Charter's AUP for other reasons, such as spamming or running a business on a residential service account. Nevertheless, Charter did not enforce the data cap provision against the vast majority of the customers exceeding the threshold even during the trial.

During the course of that trial, each month, Charter would notify **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]¹⁷³ that they had exceeded the bandwidth threshold applicable to their particular tier of service. To the extent that customers exceeded their threshold level for three consecutive months following the monthly notifications, Charter utilized its remedies under the AUP. In those situations, customers were converted to a business account (where appropriate) or asked to buy a higher tier of service. In some cases, service was terminated.

¹⁷³ See Charter Communications Annual Report for the year ended December 31, 2011, available at <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NDU3NjQ2fENoaWxkSUQ9NDg0Nzg4fFR5cGU9MQ==&t=1>.

Response to Request 35(iv):

During Charter's limited trial of the usage limits described above, customers exceeding the usage limits were identified based on total Internet usage without regard to content, communications protocol, or the types of services (*e.g.*, video streaming or file sharing) the customers were accessing. The trial did not apply to non-Internet services (*i.e.*, cable, VOD, or telephony).

Response to Request 35(v):

In January 2012, Charter terminated the trial because, **[BEGIN HIGHLY
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[END HIGHLY

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Response to Request 35(vi):

Charter did not, during the usage limit trial described above, conduct any analysis as to the effect of the trial or of the usage limits on competition for any relevant service, or on customer behavior. As noted above, the vast majority of Charter customers who were subject to enforcement of the AUP under the trial were violating the policy in ways that went beyond bandwidth usage.

Response to Request 35(vii):

Charter did not, during the limited usage trial described above, conduct any analysis as to the effect of the trial on competition for any relevant service, or for video programming. After

this trial, Charter has subsequently adopted the marketing approach of advertising/promoting the fact that its services do not have data caps.

Response to Request 35(viii):

The Company does not have any current plans for UBP or data caps, or trials regarding the same. As noted in its earlier response, Charter must retain the ability to manage its network and limit practices that undermine its security or harm the services to Charter customers. To this end, Charter's AUP enumerates certain prohibited activities such as mail bombing, flooding, and reselling of services. Also included on this list is the excessive use of bandwidth that "places an unusually large burden on the network or goes above normal usage."¹⁷⁴ Similarly, Charter has also adopted a commercial Internet AUP that is applicable to its commercial Internet customers.¹⁷⁵ The Commercial AUP generally prohibits the use of an "excessive amount of bandwidth," but likewise does not proscribe specific bandwidth thresholds. In both instances, Charter reserves this flexibility to address any unforeseen circumstance where a user's activity can harm the network or disrupt the service of others subscribers. Excessive use in this context is not intended to be a data cap nor is there a set data limit associated with the policy. To date, Charter has not used either provision to limit the usage of any customer.

Response to Request 35(ix):

As stated above, while Charter did not reach formalized "findings" from its limited usage trial, it concluded that the costs of enforcement exceeded any marginal benefit to network management. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

¹⁷⁴ See Exhibit 32-1 to Sept. 11, 2014 Response (under subheading "2. Prohibited Activities Using the System, Network, and Service.").

¹⁷⁵ See Acceptable Use Policy – Commercial Customers, Exhibit 32-3 to September 11, 2014 Response (*available at* www.charter.com/browse/content/policies-comm-acceptable-use).

[END HIGHLY CONFIDENTIAL

INFORMATION]. Charter has since chosen to market the absence of data caps as a competitive advantage of its service.

Documents responsive to this Request are provided on the enclosed hard drive in the folder “Request 35.” Charter also refers the Commission to documents Charter is providing in response to Request 37, which it incorporates by reference. Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 36

36. For each ZIP code in which the Company engaged in UBP, provide: (a) the beginning and end date for when UBP was effective; (b) the rules describing the UBP plan (maximum usage allowance, fee for usage over the allowed amount, etc.); (c) the percentage of the Company's Internet access service subscribers that were subject to UBP; (d) the revenues that the Company received from subscribers that exceeded their data usage allowance in the month; (e) the number of subscribers that exceeded their data usage allowance in the month; and (f) the average and median number of gigabytes that users exceeding their data usage allowance.

Response to Request 36:

Charter does not engage in UBP and has not done so during the relevant period.

Accordingly, the Company does not have information responsive to this Request.

REQUEST 37

37. Describe, and produce and identify documents sufficient to show: a) any practices and initiatives in which the Company contacted its Internet access service subscribers relating to the subscriber's volume of usage of the Company's Internet access service; b) any actions taken as a result of the subscriber's excessive consumption of the Company's Internet access service; and c) how the practice described in subpart a) impacted the subscriber's usage of the Company's Internet access service. In your description, indicate the threshold or amount of bandwidth usage or consumption that triggers this contact.

Response to Request 37(a):

As described in Charter's response to Request 35, *supra*, Charter customers have uncapped access to the Internet for all types of lawful content, including video services.

The only initiative during which Charter contacted its customers regarding their volume of usage of the Company's Internet access service was the trial between December 2010 and January 2012 described in the response to Request 35. During the course of that trial, each month, Charter would notify **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]¹⁷⁶

that they had exceeded the bandwidth threshold applicable to their particular tier of service. Such notifications were not triggered by a particular threshold or amount of bandwidth usage or consumption, but rather by the subscribers' usage relative to other Charter broadband Internet access subscribers.

Response to Request 37(b):

During the limited trial described above, to the extent that customers exceeded their threshold level for three consecutive months following the monthly notifications, Charter utilized

¹⁷⁶ See Charter Communications Annual Report for the year ended December 31, 2011, available at <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NDU3NjQ2fENoaWxkSUQ9NDg0Nzg4fFR5cGU9MQ==&t=1>.

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its remedies under the AUP. In those situations, customers were converted to a business account (where appropriate) or asked to buy a higher tier of service. In some cases, service was terminated.

Response to Request 37(c):

Charter did not, during the usage limit trial described above, conduct any comprehensive analysis as to the effect of the trial or of the usage limits on competition for any relevant service, or on customer behavior. Charter engaged in only *ad hoc* review of some of the heaviest users contacted as part of the trial, which indicated that many of the very heaviest users reduced their Internet usage, but that changes to their broadband Internet access services packages were minimal.

Charter is providing documents responsive to this Request in the enclosed hard drive in the folder “Request 37.” Charter additionally refers the Commission to documents Charter is providing in response to Request 35, which it incorporates by reference.

REQUEST 38

38. Describe, and produce and identify documents sufficient to show, the Company's current or past implementation or trials of UBP for residential Internet access service in any relevant service area.

Response to Request 38:

As set forth in Charter's responses to Requests 35 and 36, *supra*, Charter does not engage in UBP and has not done so during the relevant period. Accordingly, the Company does not have information responsive to this Request.

REQUEST 39

39. Describe, and produce and identify documents regardless of date sufficient to show, the Company's rationale for its 2009 decision to include specific usage caps in the excessive bandwidth provision of the Acceptable Use Policy ("AUP") for residential Internet access service customers.

Response to Request 39:

At the time Charter included specific usage caps in its 2009 AUP, its primary rationale was that excessive bandwidth use by some users can degrade the experience for others by creating network congestion. Among the available traffic management tools at the time, Charter believed that reserving its right to prevent excessive use of subscribers' Internet access services was a neutral and objective means of managing its network. This approach avoided measures that would have limited subscribers' use of their Internet access service based on content or protocol. In addition, as set forth in Charter's response to Request 35, *supra*, the limits were designed to reflect a level of usage well beyond the needs of the average customer subscribing to that service tier. Finally, the limits were designed to provide Charter the flexibility to manage a customer's extreme Internet use in order to protect the network and ensure adequate bandwidth for all Charter customers.

Charter additionally refers the Commission to documents Charter is providing in response to Requests 35 and 37, which it incorporates by reference.

REQUEST 40

40. Describe, and produce all documents related to, the Company's rationale for its decision to cease imposing specific usage caps on its residential Internet access service customers. Provide documents including, but not limited to:

- a. the date you ceased imposing specific usage caps;
- b. business plans;
- c. short-term and long-range strategies and objectives;
- d. budgets and financial projections;
- e. projections to management committees, executive committees, and boards of directors; and
- f. plans to improve services.

For each description, identify documents sufficient to support your answer.

Response to Request 40:

As set forth in Charter's response to Request 35, *supra*, during the limited AUP enforcement trial that Charter conducted between December 2010 and January 2012, it concluded that the benefits to customers of continuing the trial (minimizing bandwidth consumption to preserve a positive Internet experience for customers) would not exceed the operational costs of the program. In the years following the trial, Charter further considered the state of the marketplace for Internet access services, including usage caps imposed by Charter's peers and competitors, as well as the experience of other Internet access service providers that had utilized data caps and/or UBP. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] In 2012, Charter raised its

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lowest broadband tier offered to 30 Mbps and then to 60 Mbps (except in St. Louis where the lowest tier is 100 Mbps). As set forth in the Public Interest Statement for the Transaction, Charter faces strong incentives to expand and improve its broadband product, and has a track record of investing its own resources in interconnection infrastructure in order to reliably deliver data-hungry content. Data caps and UBP are inconsistent with promoting and marketing Charter's increasingly fast broadband services. Accordingly, Charter updated its policies to make clear that no data caps applied to its services.

Charter refers the Commission to documents Charter is providing in response to Requests 35 and 41, which it incorporates by reference. Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 41

41. Describe, and produce all documents regardless of date concerning:
- a. the Company's rationale for: (a) Charter's excessive use trial period; and (b) deciding to cease enforcement of the excessive bandwidth provision of the AUP; and
 - b. the Company's costs to monitor the usage of its residential broadband service customers during Charter's excessive use trial period.

For each description, identify documents sufficient to support your answer.

Response to Request 41:

At the time Charter commenced the AUP enforcement trial described in Charter's response to Request 35, *supra*, it did not yet know what the result, length, or effect of that trial would be. Charter decided to conclude the trial once it believed it had gathered sufficient information to evaluate enforcement of usage caps as a means of managing congestion events and ensuring a better Internet experience for the vast majority of its users. As set forth in the response to Request 35, Charter concluded that enforcement of usage caps was not a cost-effective means of accomplishing those goals. Among other things, the number of excessive use customers that could reasonably be contacted each month during the trial represented only a tiny fraction of its overall subscribers and a very small fraction of the traffic on its network. At the same time, the trial required Charter to devote significant time and effort to having personnel manually identify, make contact with, track, and when needed engage in subsequent follow-up with excessive use customers. Thus, any reduction in network traffic accomplished through contacting this small number of excessive use customers was minimal relative to both the effort required and the size of Charter's network and subscriber base. Thus, Charter concluded that any operational benefits from the trial were insufficient to justify its costs.

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Charter is providing documents responsive to this Request on the enclosed hard drive in the folder “Request 41.” Charter also refers the Commission to documents Charter is providing in response to Requests 35 and 37, which it incorporates by reference. Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 42

42. Provide all documents regardless of date relating to Charter's excessive use trial period, including but not limited to:

- a. business plans;
- b. short-term and long-range strategies and objectives;
- c. budgets and financial projections;
- d. projections to management committees, executive committees, boards of directors;
- e. plans to reduce costs;
- f. plans to improve services;
- g. the increased revenues the Company received after converting excessive bandwidth users to business accounts;
- h. the increased revenues the Company received from converting excessive bandwidth users to higher tier residential accounts; and
- i. plans to discontinue Charter's excessive use trial period.

Response to Request 42:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 43

43. Provide, cumulatively on a nationwide basis and separately by DMA, the number and proportion of your customers who exceeded their bandwidth threshold under Charter's excessive use trial period and subsequently:

- a. were converted to a business account;
- b. were converted to a higher tier residential account;
- c. had their account "suspended," as that term was used in the AUP during Charter's excessive use trial period;
- d. had their account terminated;
- e. had their account suspended or terminated after declining Charter's request to convert to a business account;
- f. had their account suspended or terminated after declining Charter's request to convert to a higher tier residential account; and
- g. cancelled their account.

Response to Request 43:

The AUP enforcement trial described in Charter's responses to Requests 35 and 37 ended over three and a half years ago. In the years since, the company has undergone a number of significant changes, among them a decision not to pursue a strategy incorporating usage caps into its broadband Internet access services. Charter has no present plans to impose or enforce such data caps in the future. Although the Company may have tracked some of the information requested by this Request in connection with its AUP enforcement trial, the Company does not retain in the normal course of business the data or information necessary to respond to this Request. However, Charter is providing documents in connection with Requests 35 and 37 reflecting partial and interim reporting of some of those metrics, which Charter incorporates herein by reference.

REQUEST 44

44. Describe and identify and produce documents regardless of date sufficient to show why after deciding to cease enforcement of the excessive bandwidth provision of the AUP in January 2012, Charter waited until October 2014 to eliminate specific usage caps from the AUP.

Response to Request 44:

Charter's new management was undertaking a number of changes throughout the Company during the relevant period, including to Charter's services and marketing. Given that there was no negative effect on subscribers from not enforcing the usage caps, Charter thought it advisable to limit the potential customer confusion that could be caused by piecemeal changes to the Company's services and terms of use by waiting to announce several changes, including elimination of specific usage caps, to its service and terms of use policies at once, around the same time in 2014.

Charter additionally refers the Commission to documents Charter is providing in response to Request 35, which it incorporates by reference.

REQUEST 45

45. Describe and produce and identify documents sufficient to show changes, if any, in policies and procedures for technical methods related to edge providers, CDNs, or transit service providers traffic on the Company's Internet access service or Internet backbone services, including but not limited to, methods related to packet classification, admission control and resource reservation, rate control and traffic shaping, congestion management, packet dropping and packet scheduling.

Response to Request 45:

Charter has not made any changes during the relevant period to its policies for technical methods related to traffic from edge providers, CDNs, or transit providers on its Internet access service, nor has it made such changes to its practices when interconnecting its network with third-party services or networks. Charter strives to ensure adequate capacity for its interconnection partners, as set forth in the Company's responses to Requests 54, 55, and 56, *infra*. The only change in Charter's practices with respect to technical methods related to traffic from interconnection partners during the relevant period, as set forth in Charter's Response to Request 54, is that Charter now strives to identify and add capacity at interconnection points [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION], whereas Charter's practice in the past was to identify and add capacity [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION].

With respect to Charter's Internet access services, during times of peak congestion Charter has begun using Cable Modem Termination System ("CMTS") locations technology to manage congestion via protocol-agnostic and source-agnostic deprioritization. Charter's use of this technology is set forth in greater detail in Charter's response to Request 46. However, as the technology is source- and protocol-agnostic, this means of congestion management bears no

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relationship to the edge provider, CDN, or transit company from which the traffic originated, and is therefore not responsive to this Request.

Charter additionally refers the Commission to documents Charter is providing in response to Request 46, which it incorporates by reference.

REQUEST 46

46. Describe and produce and identify documents sufficient to show the traffic management or engineering tools that identify, inspect, monitor, label, tag, cache, throttle, rate-limit, shape, discard, block or otherwise control Internet traffic on the Company's network, including but not limited to policies and procedures for managing traffic delivered to and carried by the Company's networks, including documents that analyze the tradeoffs between allocating differing bandwidth levels, latency, routing assignments or other performance engineering to non-broadband Internet access service data services and whether a particular service qualifies as a non-broadband Internet access service data service, as that term is defined in this Information and Data Request.

Response to Request 46:

Charter marks IP packets entering its network in order to assure the proper priority and quality of service but does not engage in throttling or rate-limiting traffic based on the source, destination, or protocol of the traffic as a means of traffic management, or for any other purpose.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END

HIGHLY CONFIDENTIAL INFORMATION]. Moreover, excluding actions taken for network security purposes (which Commission Staff have clarified to be beyond the scope of this Request), the Company does not engage in blocking as a means of traffic management.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

¹⁷⁷ For these purposes, Charter's cable video service **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION].

¹⁷⁸ In the near future, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL

INFORMATION]

During normal operation of the network, the marking of packets according to priority levels has no effect on traffic management or the performance experienced by subscribers. However, if a congestion event were to occur, routers within Charter's network would queue IP packets for routing in order of priority, thus preserving network function and performance for higher-ranked services. This helps ensure that the services that Charter provides over the same facilities as its High-Speed Internet services that are highly vulnerable to degradation (*e.g.*, linear and on-demand video and VoIP services) are less likely to be disrupted during a congestion event. In addition, Charter's prioritization of traffic enables Charter to meet its obligations to ensure consistent performance for certain Charter Business customers that have purchased a certain level of service.

The *Network Management* section of Charter's residential AUP¹⁷⁹ provides that Charter may use reasonable network management techniques to ensure that all of its customers have a good customer experience during times of network congestion. These tools and practices include, but are not limited to, technologies to temporarily manage upstream and downstream traffic in a protocol-agnostic manner during times of peak congestions. As set forth in the

[END HIGHLY CONFIDENTIAL

INFORMATION]

¹⁷⁹ <https://www.charter.com/browse/content/policies-comm-acceptable-use>.

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Network Management section of its residential AUP, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY**

CONFIDENTIAL INFORMATION], technology to manage congestion via protocol-agnostic and source-agnostic deprioritization of traffic as a means of congestion management during times of peak congestion. In locations served by Cisco CMTS equipment this functionality is known as subscriber traffic management (“STM”), and in locations served by Arris CMTS equipment this functionality is known as Service Class Agility (“SCA”); however, both STM and SCA have the same capability.

Charter is providing documents responsive to this Request on the enclosed hard drive in the folder “Request 46.”

REQUEST 47

47. Provide a list and produce a copy of all Internet interconnection agreements (and amendments), formal or informal, the Company has entered into with any person (including CDNs, edge providers, Internet access service providers and Internet backbone services providers) that are currently in effect or entered into since January 1, 2013. For each person on the list, identify and describe the number of ports, capacity, utilization/congestion, whether the interconnection is peering or transit service traffic, whether the traffic must be localized, and the financial terms associated with each interconnection agreement.

- a. Produce all documents discussing factors the Company considers or considered in negotiating the terms of any interconnection agreement; and
- b. Provide a list of all Internet interconnection agreements entered into or amended after September 11, 2014. If amended, describe the content of the amendment.

Response to Request 47:

Data responsive to this Request will be provided in a subsequent production.

REQUEST 48

48. Describe your Internet backbone in the United States, including identifying and describing all routes, capacity, and each IP point of presence. Identify and describe any fiber (owned or leased), including name of vendor used to transmit data between one IP point of presence and another IP point of presence within the Company's network. For each IP point of presence for your Internet backbone network located in the United States, identify the owner or name of the IP point of presence (e.g., Equinix) and the geographic location (e.g., Ashburn, VA).

Response to Request 48:

Data responsive to this Request will be provided in a subsequent production.

REQUEST 49

49. Describe and provide all documents concerning:
- a. when and why the Company decided to build an Internet backbone;
 - b. the Company's interconnection strategy, and how that strategy may have changed over time;
 - c. the benefits the Company has identified relating to controlling an Internet backbone; and
 - d. when the Company's Internet backbone went into service.

Response to Request 49:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

Response to Request 49(a):

Charter developed and deployed its National Internet Backbone ("National Backbone") in 2009. Before it deployed a backbone, Charter obtained Internet connectivity principally through scores of local Internet connection points, known as "Internet Drains," that were often supplied by small regional telecommunications companies or competitive local exchange providers.

Charter found this situation disadvantageous for multiple reasons. First, the circuits were difficult to manage. Second, it was difficult and expensive, if not sometimes impossible, for Charter to ensure redundant circuits while obtaining Internet connectivity through third-party Internet Drains. Third, upgrading capacity using these connections was often time-consuming. Fourth, because customer traffic needed to be routed through numerous routing points (hops) outside of Charter's network, Charter's network performance suffered from increased latency as a result. Charter determined that deploying a national backbone, which would allow it to interconnect its network to major peering points, interconnect with other providers, utilize more reliable and established vendors, increase reliability, and have a clearer path to augment capacity

quickly when needed, would help Charter significantly improve the performance of the Internet access it could offer to subscribers.

Response to Request 49(b):

When Charter's National Backbone was originally deployed, Charter interconnected only with a handful of companies, mainly large companies such as Akamai Technologies ("Akamai"), Google, and Level 3 Communications ("Level 3"). One of the principal purposes for which Charter deployed a national backbone was to facilitate interconnection with other providers' networks and other peering partners, thus enabling the mutually beneficial exchange of traffic. Over the six years since it deployed its backbone, Charter has operated it with an open and inclusive settlement-free peering policy. As set forth in Charter's responses to Requests 61-63, which Charter incorporates by reference, Charter, under its Private Settlement-Free Peering Policy, is open to interconnecting with edge providers and other networks on a flexible basis with the goal of improving the efficiency of its network and the Internet experience of its customers. Charter's Backbone now interconnects with dozens of other companies, including both network operators and edge providers, and including not only large companies such as [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION], but also mid-size companies (such as [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]) and small ones (such as [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]).

Response to Request 49(c):

To improve the performance of its network, Charter designed and deployed in 2009 its National Backbone connected to major peering points in sites such as Chicago, IL and Atlanta,

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GA. The National Backbone has provided performance and operational improvements, including:

Improved Internet connection reliability, as non-redundant and/or unreliable local Internet Drains were removed;

Improved Internet connectivity performance through reduced Internet hops, state-of-the-art Backbone Routers, and rigorously supported Data Center locations managed by established vendors such as Equinix;

Reduced the complexity of the network and the number of Internet Drain circuits;

Increased the resiliency of the network to events such as fiber cuts or router failures, as the design of the backbone is a “mesh” in which traffic can re-route in multiple different directions if a particular circuit has performance issues, with additional protection provided by redundant routers at each Backbone site;

Improved Charter’s ability to interconnect with Internet peers by extending Charter’s network to large peering points;

Provided national video connectivity to allow Charter to rapidly launch new video services from geographically redundant headends; and

Allowed rapid bandwidth upgrades as required by customer demand.

Since its deployment, the National Backbone has been augmented on a continual basis to provide bandwidth for customer Internet consumption and for new products and services that Charter has launched. For instance, the bandwidth has enabled Charter to offer more than 200 HD video channels and the Spectrum TV App.

Response to Request 49(d):

As described above, Charter’s National Backbone went into service in 2009.

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REQUEST 50

50. Produce documents containing written communications between the Company and Netflix, Cogent, Level 3, Akamai, Limelight and Google relating to the negotiation of interconnection agreements.

Response to Request 50:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 51

51. Submit all documents relating to the Company's or any other person's policy or practice with respect to peering, including, but not limited to, any discussion or consideration of imposing changes or conditions upon peering, including any discussion of the effects of such policy or practice or change in such policy or practice.

Response to Request 51:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 52

52. Identify each person: (a) with whom the Company has replaced a settlement-free peering arrangement with a paid peering or transit service agreement, and describe the reason(s) why the Company replaced the settlement-free arrangement with a paid peering or transit service arrangement; and (b) who at their requestor initiation has replaced a settlement-free peering arrangement with the Company with a paid peering or transit service agreement, and describe any reason(s) offered by that person for replacing the settlement-free peering arrangement with a paid peering or transit service agreement.

Response to Request 52:

Charter has never (a) replaced a settlement-free peering arrangement with a paid peering or transit agreement, as Charter does not have and has not had any paid peering arrangements, or (b) had a settlement-free peer replace its arrangement with Charter with a paid peering or transit agreement. As a result, there is no person for Charter to identify in response to this Request.

REQUEST 53

53. Identify each instance, including the person, date range of the negotiations, and the Company's personnel involved, and the other person's negotiating representative, when the Company entered negotiations for interconnection but where negotiations did not result in an agreement. Produce all documents relating to the identified negotiations, including, but not limited to, documents related to the Company's or any other party's interconnection policies, strategy, or practices or change in such policies, strategy or practices, such as imposing charges or other conditions and the effects of such changes. Explain and produce all documents relating to how such traffic was delivered to the Company in the absence of an interconnection agreement.

Response to Request 53:

Excluding instances in which the Company shifted traffic from one paid transit provider to another for cost reasons only (or decided not to purchase transit services from particular vendors for cost reasons), and excluding negotiations that are presently ongoing, as discussed in Charter's response to Request 63, Charter is not aware of any instances since July 24, 2013 in which the Company entered into negotiations for an interconnection agreement where the negotiations did not result in a formal or informal contract.

REQUEST 54

54. Describe, and produce and identify all documents sufficient to show:
- a. the Company's policies with respect to upgrading, declining to upgrade, or downgrading interconnections between the Company and any person;
 - b. the Company's policies, processes and procedures for addressing congestion at interconnection links, including but not limited to: (1) how far in advance the Company plans for upgrading of interconnection links; (2) the criteria used to determine whether to upgrade capacity when requested, whether requests from settlement-free peers, paid peers, transit service providers, and transit service customers are evaluated using different criteria, and how requests for and installation of upgrades of interconnection links are prioritized; (3) whether the Company seeks to augment capacity when interconnection links reach a certain level of utilization (*i.e.*, 70% utilization) and if so, where that level is set; and (4) the costs, processes, and length of time involved in provisioning additional capacity, including a description of, and how the Company determines, which party should bear which costs;
 - c. any metrics that the Company uses in order to determine whether to upgrade or downgrade an interconnection (e.g., maximum acceptable network utilization or congestion, maximum acceptable packet loss, port availability, bandwidth capacity at particular points, latency, etc.), including what metrics are gathered and what measurement intervals are used; and
 - d. any criteria by which the Company chooses a particular type of upgrade or downgrade (e.g., addition or subtraction of an interconnection site, or addition or subtraction of capacity at an existing site).

Response to Request 54:

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL

INFORMATION] Charter tracks utilization at each network interface. In accordance with its engineering practices, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL

INFORMATION], Charter will implement one of several measures, which may include: (1) adding new circuits; (2) shifting traffic to an alternative circuit; (3) installing routers; and/or (4) leasing additional transport.

Charter's practice is to use these measures when **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]**. No other metrics are used. The choice of measures used to alleviate congestion is fact specific and depends upon the circumstances where it occurs. For example, if **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] but this manifests or otherwise appears from the information available to be a temporary situation, then traffic can be re-routed or additional transport purchased to preserve the customer experience for Charter's Internet users. Alternately, additional circuits are purchased when **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** permanently.

The costs and time required for upgrading connections vary based on the nature of the connection. For peering connections, the target for upgrading connections varies, but Charter typically attempts to upgrade within **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]**. The cost is typically **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** for each incremental cross connect leased from the facility provider, plus any hardware costs. For transit providers, the time required to implement an upgrade is typically around **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]**, with the

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cost varying substantially based on the hardware required and the contractual rate with the transit provider. Charter has not asked any “persons of responsibility” to pay for upgrades to interconnection points. Charter has opted instead to resolve congestion issues on Charter’s side of the interconnection to the extent they arise.

REQUEST 55

55. Identify each instance when a settlement-free peer requested augmentation of interconnection capacity that you did not implement within 90 days and describe the reasons for not augmenting capacity.

Response to Request 55:

As set forth in Charter's response to Request 54, *supra*, Charter works proactively to stay ahead of rising traffic at interconnection points with its peering partners by adding capacity as needed, and before increasing traffic can cause congestion events. Charter does not maintain records of requests for upgraded capacity by settlement-free peers, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]**, and any capacity upgrades for interconnecting with settlement-free peers would be governed by the standards set forth in Request 54. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION].

REQUEST 56

56. List all instances where the Company refused to upgrade an interconnection link or links for the 25 largest networks—measured by maximum capacity usage measured using the industry standard 95th percentile method—that interconnect with the Company, including: (i) the dates of the upgrades or downgrades; and (ii) the amount of capacity requested.

Response to Request 56:

As set forth in Charter’s response to Request 54 and 55, *supra*, Charter works proactively to stay ahead of rising traffic at interconnection points with its peering partners by adding capacity as needed, and before increasing traffic can cause congestion events. Charter does not maintain records of requests for upgraded capacity by interconnection partners, [BEGIN
HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY
CONFIDENTIAL INFORMATION], and any capacity upgrades for interconnecting with interconnection partners would be governed by the standards set forth in Request 54. [BEGIN
HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

REQUEST 57

57. For your 25 largest interconnection partners by traffic volume, provide a complete copy of all paid peering and transit service invoices for services provided from December 31, 2012, through June 30th, 2015. If invoices are provided for a combination of services (e.g., transit service and paid peering), provide an itemized version of each invoice, or explain in detail how the total invoice amount is allocated across services. Submission for the Request should be submitted separately from any document load file and be in an OCR searchable PDF and the invoices should be organized by interconnection partner.

Response to Request 57:

Any responsive, non-privileged documents will be provided in a subsequent production.

REQUEST 58

58. Describe, and provide and identify documents sufficient to show:
- a. the number of individuals employed by the Company to sell interconnection service (“interconnection sales people”);
 - b. the job description of an interconnection sales person, including a copy of their work plan;
 - c. the manner in which interconnection sales people are compensated, including whether it involves a sales-based bonus and how any bonuses are calculated;
 - d. the manner in which interconnection sales people’s performance, either individually or as a whole, is evaluated;
 - e. the content of a performance review for an interconnection sales person;
 - f. whether interconnection sales people have individual or collective sales targets, and if so, how those targets are measured;
 - g. the amount of sales based compensation paid to you interconnection sales people in total and on average per sales person for each quarter;
 - h. any planned modifications to the sales or other metric targets for your interconnection sales people; and
 - i. whether the Company has plans for hiring additional interconnection sales people and if so, estimates on hiring growth.

Response to Request 58:

Commission Staff has agreed to limit Request 58 to arrangements involving direct customer relationships with edge providers for purposes of providing the edge provider with access to Charter’s network. Charter does not participate in any paid peering arrangements and has not participated in any paid peering arrangements during the relevant period. Charter also does not provide transit services to third parties and has not provided paid transit services during the relevant period. As such, Charter does not “sell interconnection service” and does not employ any persons for that purpose, and accordingly has no responsive information to provide.

REQUEST 59

59. Describe the Company's existing or planned CDNs, including, for each CDN, a description of whether the CDN is for internal use by the Company (and if so, how) or for sale to or use by third parties. For CDNs sold or offered for third party use, describe the products and services the existing CDN provides or any planned CDN would provide. Identify documents sufficient to show the policies and procedures with respect to the operation of the CDN, business plans, expansion plans, budget sales, forecasts, costs and profits, and analyses of the CDN market, competition or competitors.

Response to Request 59:

Charter has not operated during the relevant period any CDN offered for sale or use to third parties. Charter also has no current plans to enter the market as a CDN service provider. Accordingly, Charter does not participate in the CDN market or maintain documents pertaining to the same.

In connection with its VOD service offering, Charter is preparing to [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] is to facilitate the delivery of Charter's own video services, rather than a service offered for sale to third parties.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL

INFORMATION]

A graphic illustrating **[BEGIN HIGHLY CONFIDENTIAL**

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INFORMATION] is included as Exhibit 59 on the accompanying hard drive in the folder

“Request 59.”

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REQUEST 60

60. Describe, and identify and produce documents sufficient to show, the Company's post-transaction plans for interconnection agreements between the Company and interconnection partners in the following situations:

- a. when Charter or TWC has a transit services agreement and the other has a peering agreement, which agreement New Charter will proceed under;
- b. when either Charter or TWC has a peering agreement or a transit services agreement and the other has no interconnection agreement, whether New Charter will apply the existing interconnection agreement for the full network; and
- c. when New Charter has no interconnection agreement with a major network (i.e., Tier 1 backbones, major CDNs), whether New Charter will seek new interconnection agreements and under what peering policy or terms.

Response to Request 60(a) and 60(b):

Charter has not yet had access to TWC's peering and transit agreements, and, accordingly is not yet in a position to opine as to how those agreements may inform the terms of the partner's interconnection with New Charter following the Transaction.

That said, it is Charter's expectation that, following the Transaction, any qualifying existing or potential peering partner of either the legacy Charter or legacy TWC will be able to avail itself of Charter's IP Interconnection Policy and Requirements ("IP Interconnection Policy") to interconnect with New Charter, and interconnect with New Charter on those terms if it qualifies.¹⁸⁰ For instance, Charter's agreement with Netflix under its IP Interconnection Policy provides that the IP Interconnection Policy will apply to New Charter following the Transaction within a reasonable period of time as necessary to transition the underlying points of interconnection.

¹⁸⁰ Available at <https://www.charter.com/browse/content/peering>.

With respect to Charter's and TWC's other peering and transit partners, existing agreements may govern the terms of interconnection post-Transaction, and Charter would need to first review TWC's agreements before reaching decisions as to the post-Transaction interconnection terms. However, Charter expects that many if not all such partners will qualify under Charter's Private Settlement Free Peering Policy and Requirements ("Settlement Free Peering Policy").¹⁸¹ Charter is open to evaluating peering arrangements with potential partners, including those with existing peering or transit arrangements with either Charter or TWC, on the terms set forth in its Settlement Free Peering Policy, which will continue to apply post-Transaction.

With respect to Charter's and TWC's existing transit vendors that either do not request or do not qualify for interconnection or settlement-free peering under Charter's policies, it is Charter's expectation that contractual and business considerations will determine the extent to which New Charter continues to purchase transit services from such vendors.

Response to Request 60(c):

Charter expects that many "major network[s]" may qualify for interconnection under Charter's IP Interconnection Policy. In the event a major network qualifying under the policy so requests, New Charter would interconnect with it under the terms of that policy.

New Charter will also consider requests for interconnection under its Settlement Free Peering Policy, under which Charter has already interconnected with a number of backbone and CDN providers and works flexibly with other providers to effect efficient exchange of traffic. Charter expects that major networks of the sort contemplated by this Request will easily satisfy the eligibility criteria under its Settlement Free Peering Policy.

¹⁸¹ *See id.*

REQUEST 61

61. Describe, and produce and identify documents sufficient to show, the reasons for (a) modifying your “Private Settlement Free Peering Policy and Requirements” in July 2015, including the reasons for lowering the minimum traffic volume that must be maintained in the dominant direction; and (b) adopting the document titled “Charter Communication’s IP Interconnection Policy and Requirements.” Include in your answer the identity of all persons that you consulted, or with whom you negotiated, regarding the “Charter Communication’s IP Interconnection Policy and Requirements” or the modifications to the “Private Settlement Free Peering Policy and Requirements.” Produce all documents related to both the July 2015 modifications to your “Private Settlement Free Peering Policy and Requirements” and the document titled “Charter Communication’s IP Interconnection Policy and Requirements” attached to Charter’s July 15, 2015 ex parte filing, including:

- a. documents containing communications with other persons, including but not limited to Internet backbone services providers, transit service providers, edge providers, CDN service providers, consultants, and your agents; and
- b. studies, forecasts, surveys, analyses, business plans, and strategy documents.

Response to Request 61(a):

Charter evaluates peering requests on a case-by-case basis. Charter’s Settlement Free Peering Policy¹⁸² sets forth guidelines Charter considers in determining whether to invest the resources in a direct peering relationship.

Prior to June 2015, Charter’s Settlement Free Peering Policy set forth a guideline that the provider exchange with Charter monthly traffic of 300 Mbps in the dominant direction to qualify for consideration by Charter for a direct settlement-free peering relationship.¹⁸³ Charter became aware that this 300 Mbps threshold was significantly lower than the traffic thresholds applied by other large Internet Service Providers, and briefly updated the policy on or around June 23, 2015 to conform to the guidelines published by other providers, setting a traffic threshold of 10 Gbps.

¹⁸² Available at <https://www.charter.com/browse/content/peering>.

¹⁸³ *Id.*

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A copy of this interim policy is provided as Exhibit 61-1 in the enclosed hard drive in the folder “Request 61.”

Charter reconsidered the June 23, 2015 change and reverted the threshold back to 300 Mbps on or around July 29, 2015, in part based on a conclusion that Charter’s longstanding practice of flexibly entering into settlement-free peering arrangements without difficult or burdensome technical preconditions had well-served the company. *See* Exhibit 61-2. This reconsideration was also based in part on a conclusion that the continuation and extension of Charter’s longstanding practice to the TWC and BHN footprints might be considered, by the Commission and by other parties, to be a benefit to the public interest of the proposed Transaction. Thus, although Charter briefly modified its Private Settlement Free Peering Policy to reflect similar policies then in effect at other providers, it never enforced the temporary changes to the policy, and reversed such edits. Charter did not consult or negotiate with any third parties as part of this process.

Response to Request 61(b):

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INFORMATION]

Documents in support of the Company's response to Request 61 are provided on the enclosed hard drive in the folder "Request 61."

REQUEST 62

62. The “Charter Communications IP Interconnection Policy and Requirements” attached to Charter’s July 15, 2015 ex parte filing states that for potential interconnection partners to qualify under the Policy, they “must interconnect at each of the Charter points of presence (each a “POP”) listed below and at any additional Charter POP within 90 days of the establishment of such new POP.”

- a. Identify the POPs where New Charter’s interconnection partners will be required to interconnect in order to qualify;
- b. Describe whether and how the TWC and Bright House POPs will be added to the list of POPs where an interconnection partner must interconnect with New Charter in order to qualify; and
- c. Explain what the requirements for interconnection under the policy will be in situations where there is more than one POP in a city or other geographic location. In such cases, explain whether the interconnection partner must, in order to qualify, interconnect at each POP or at only one of the POPs and whether the interconnection partner must deliver 3 Gbps to each of the multiple POPs, or whether the traffic shows the Company’s minimum can be met on a per city or other geographic location basis.

Response to Request 62(a) and 62(b):

The POPs at which interconnection partners must interconnect with the Charter network are presently spelled out in its IP Interconnection Policy:

Equinix
11 Great Oak, San Jose, CA

Equinix
350 Cermak, Chicago, IL

Telx
56 Marietta, Atlanta, GA

Equinix
600 W 7th, Los Angeles, CA

Equinix
20715 Filigree Ct, Ashburn, VA

Equinix
1950 N Stemmons, Dallas, TX

Equinix

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2001 6th Ave, Seattle, WA

Cologix
511 11th Ave W, Minneapolis, MN

Seattle IX (SIX)
Westin Bldg, Seattle, WA

Of those locations, the first eight represent POPs at which interconnection partners can interconnect directly with Charter's network, whereas the ninth (Seattle IX (SIX)) represents a location, in the same facility as the Seattle Equinix location, where Seattle IX provides interconnection services to smaller vendors.

Following the Transaction, New Charter expects to analyze its network, including the legacy TWC and BHN networks, to identify the most efficient POPs for major interconnection partners to interconnect with New Charter. This will include consideration of the locations of the additional TWC and BHN POPs and the flow of traffic to and from New Charter customers throughout its footprint, including the legacy TWC and BHN footprints. It is Charter's expectation that this process will likely result in New Charter's amending the Charter IP Interconnection Policy to add POPs, currently within the TWC and/or BHN networks, to account for the influx of additional subscribers and New Charter's wider footprint. Charter has not yet formulated specific plans as to any such amendments, but after the Transaction is concluded it intends to work productively towards making future interconnection arrangements as efficient as possible for both New Charter and any interconnecting partners.

Response to Request 62(c):

It is Charter's expectation that, as New Charter integrates the TWC and BHN networks, there will be some geographical locations within which the New Charter network will contain multiple POPs serving overlapping regions. Charter already faces such a situation in the Seattle, Washington region, where Charter maintains POPs with both Equinix and Seattle IX (SIX) (see

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response to Request 62(a), *supra*). In negotiations with partners currently seeking interconnection under its IP Interconnection Policy, Charter is not requiring partners to meet the 3 Gbps requirement separately for each POP in Seattle, but only at one location. In the event New Charter amends the policy to add additional POPs, either resulting from the Transaction or otherwise, it will similarly require partners to meet the 3 Gbps requirement only for a single POP within each geographic region.

REQUEST 63

63. Identify:
- a. all persons that, as of July 1, 2015, qualified for settlement-free peering under the Company’s “Private Settlement Free Peering Policy” in effect prior to July 1, 2015 and the POPs at which they interconnected as of that date;
 - b. all persons that, as of July 16, 2015, qualified for settlement-free peering under the Company’s updated “Private Settlement Free Peering Policy” in effect on or after July 15, 2015 and the POPs at which they interconnected as of that date;
 - c. all persons that qualify for free interconnection or settlement-free peering under your “IP Interconnection Policy” attached to your ex parte filing of July 15, 2015 if it was put into force as of the date of this IR; and
 - d. all persons listed in response to (b) that are not listed in response to (c), and explain each reasons why each person would not qualify for free interconnection under the “IP Interconnection Policy.”

Response to Request 63(a) and 63(b):

Charter reviews requests for settlement-free peering on a case-by-case basis, considering whether the interconnection arrangement provides measureable benefits to Charter and its customers. Charter’s Settlement Free Peering Policy sets forth guidelines to consider in evaluating such peering requests.¹⁸⁴

The technical guidelines in Charter’s Settlement Free Peering Policy are broadly accessible to a range of potential peering partners, and Charter expects that there are many network operators and service providers capable of qualifying for consideration by Charter. Absent a peering or other interconnection relationship, however, Charter does not have insight into the extent to which any given provider has the ability and willingness to meet its guidelines and interconnection terms. Charter is only aware of specific providers that have requested and

¹⁸⁴ Available at <https://www.charter.com/browse/content/peering>.

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obtained settlement-free peering with Charter pursuant to that policy. The providers with whom Charter presently peers are as follows:¹⁸⁵

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[illegible]

¹⁸⁵ In addition to the direct interconnection partners listed, Charter peers on a settlement-free basis with approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] additional providers through three Internet Exchange partners—Equinix, MICE, Telx IX, and Seattle IX (SIX)—that provide shared interconnection services in all 8 POPs.

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[END HIGHLY CONFIDENTIAL INFORMATION]

Charter did not alter its Settlement Free Peering Policy between July 1, 2015 and July 15, 2015, and is therefore not aware of any provider whose eligibility for settlement-free peering under the policy changed during that time. As set forth in Charter's response to Request 61, *supra*, Charter posted a revised Settlement Free Peering Policy for a few weeks in June and July 2015, but restored the traffic guidelines set forth in the original policy after a brief period. Charter is not aware of any provider that sought a settlement-free peering arrangement during the brief window that a revised policy was posted on Charter's website. Nor is Charter aware of any provider that was disqualified from consideration at the time on the basis of insufficient traffic volume.

Response to Request 63(c):

Absent an existing interconnection relationship with a network provider, Charter is unable to exhaustively determine whether other providers have the ability and/or willingness to meet the technical requirements set forth in Charter's IP Interconnection Policy. Charter is only aware of specific providers that have come forward and requested interconnection under its policy. As of the date of these responses, Charter is aware that Netflix qualifies for interconnection under the policy, and is currently evaluating requests by **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** already peers with Charter under an existing settlement-free peering arrangement. Although Charter is evaluating **[BEGIN HIGHLY**

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[END HIGHLY

CONFIDENTIAL INFORMATION] respective willingness and ability to meet the technical criteria under the IP Interconnection Policy, it is Charter's understanding, based on historic traffic volumes, that **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] exchange sufficient traffic with Charter to qualify. In addition, as set forth in Response 63(a) above, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION].

In addition to **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION], Charter believes that there are several other providers who already exchange traffic with Charter under settlement-free peering arrangements sufficient to meet the traffic volume criteria under its IP Interconnection Policy, including:

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

However, these providers have not yet requested interconnection pursuant to the IP Interconnection Policy, and Charter has not yet had occasion to evaluate their ability or willingness to meet other criteria set forth therein. At present, of the providers listed, **[BEGIN**

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[END HIGHLY

CONFIDENTIAL INFORMATION] currently interconnect with Charter at all POPs set forth in the IP Interconnection Policy; however, other providers on this list may be willing to meet that requirement in the future. To the extent that these or other providers request to interconnect under the IP Interconnection Policy, Charter and New Charter will fairly evaluate such requests.

Response to Request 63(d):

As discussed in response to Request 63(a) above, Charter evaluates requests for settlement-free peering on a case-by-case basis. Charter's IP Interconnection Policy is by no means exclusive; Charter peers on a settlement-free basis with numerous providers not meeting the technical criteria set forth therein, including under its Settlement Free Peering Policy. Several providers that currently peer with Charter on a settlement-free basis have not historically exchanged traffic with Charter at volumes sufficient to meet the criteria in Charter's IP Interconnection Policy. Those include:

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

In addition, the following providers generally exchange sufficient traffic volume with Charter to qualify for interconnection under the IP Interconnection Policy, but do not presently interconnect with Charter at the requisite POPs:

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

However, Charter already peers with each of these providers on a settlement-free basis, and remains open to entering into interconnection agreements under its IP Interconnection Policy with any provider, including those listed, that are able and willing in the future to satisfy the criteria set forth therein.

REQUEST 64

64. Describe, and identify and produce documents sufficient to show, the Company's post-transaction interconnection plans for its 25 largest interconnection partners by traffic volume. For each such interconnection partner, explain in detail:

- a. whether the plans increase or a reduce the partner's interconnection capacity, concluding capacity through: (1) settlement- free peering; (2) paid peering, or (3) transit services, and the periods during which such reductions or increases are expected to occur; and
- b. the IP points of presence where the interconnection partner interconnects with you today and where you expect it will interconnect with you post-merger, and the time periods over which such changes are expected to occur.

Response to Request 64(a):

Charter intends to continue to interconnect and peer with other providers post-Transaction as set forth in its IP Interconnection Policy and its Settlement Free Peering Policy.¹⁸⁶ However, because Charter does not yet have access to either TWC's or BHN's interconnection, peering, or transit agreements, technical data regarding network configurations, or the traffic volumes exchanged with their interconnection partners, Charter has not yet formulated specific post-Transaction plans with respect to interconnection, peering, or transit. Nor has Charter, absent review of TWC's and BHN's transit agreements, yet been in a position to formulate post-Transaction plans for the purchase of transit services on behalf of New Charter.

That said, it is Charter's expectation that providers that interconnect under its IP Interconnection Policy will continue to do so with New Charter post-Transaction. For instance, Charter has recently signed an interconnection agreement with Netflix pursuant to its IP Interconnection Policy that will continue to apply to New Charter post-Transaction. In addition, Charter has no paid peering relationships today and has no plans, intention, or expectation of entering into any paid peering agreements post-Transaction.

¹⁸⁶ Available at <https://www.charter.com/browse/content/peering>.

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Response to Request 64(b):

The POPs at which Charter’s current peering partners with the largest amount of traffic volume interconnect with Charter’s network are identified in Charter’s response to Request 63, which the Company incorporates by reference. With respect to Charter’s paid transit providers, Charter interconnects with those providers at the locations listed in the table below. For reasons stated in Response to Request 64(a), Charter does not yet have plans as to where it will interconnect with these providers post-merger.

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[illegible]

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[END HIGHLY CONFIDENTIAL INFORMATION]

REQUEST 65

65. Produce all documents and databases from which data was provided to, reviewed by, relied upon, or referred to by Dr. Fiona Scott Morton in her declaration.

Response to Request 65:

Documents responsive to this Request are provided in the enclosed hard drive in the folder “Request 65.” Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 66

66. Dr. Scott Morton states, “It is likely that some of the OVD services are complements to traditional video services for many subscribers, not substitutes. The ability to watch past seasons of a series, for example, can spur a subscriber’s demand to view the current season.” June 24, 2015 Scott Morton Declaration at ¶ 58. Dr. Scott Morton notes findings that “consumers are not currently substituting traditional television for Netflix.” *Id.* Identify each OVD service that is a complement to traditional video service. Identify each OVD service that is a substitute for traditional video service. Describe in detail, and provide all documents relating to, whether and the extent to which online video services that offer significant current season content, including but not limited to Hulu (free service and subscription service), Amazon Instant Video, CBS All Access service, DISH Network’s Sling TV service, HBO Now, Netflix, and Sony Entertainment Network’s Vue service, are substitutes for, or complements to, the Company’s video services. Describe in detail, and provide all documents relating to, whether, and to the extent which, online video services that offer bundles of live channels (e.g., DISH’s Sling TV, Sony’s Vue) compete against your video services or other MVPD’s video services.

Response to Request 66:

The question posed by this Request is difficult to answer in the abstract, as customers have diverse needs and expectations for video services. The cited passage in Dr. Scott Morton’s declaration did not purport to opine generally as to competition between OVD services and other video services in all cases, but rather opined on the competitive relationship between OVD services and other video services for some customers. For instance, some customers may value a diverse and robust programming lineup, whereas others may value a specific, narrower range of programming or programming networks. In these instances, the competitive attractiveness of MVPD offerings and OVD offerings will vary between households, and even between customers in the same household.

Charter believes that, at least for many customers, whether an OVD operates as a complement or substitute to MVPDs depends in significant part on the video programming offered. OVD services offering content distinct from the linear content offered by MVPDs such as Charter are less likely to be viewed as substitutes, and more likely to be viewed as complements.

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Many programmers license their content to only one or a small number of video providers; many OVD services therefore offer programming that cannot be obtained from MVPDs (including both original programming and past seasons of programs not presently airing on live channels). Due to the sheer number of OVD services in the marketplace, it is not practical to identify all OVD services whose programming lineups may function as complements. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

Some OVD services may be more similar to traditional video. For example, DISH SlingTV and Sony Vue include streaming of content such as broadcast and extended basic channels also found on linear traditional video. For some subset of customers, these products may appear to be differentiated substitutes for traditional video. How consumers may compare these OVDs to traditional video can depend on several characteristics of consumer preferences including how many and which channels are included in the service offerings, prices, whether the consumer can use a DVR, and the delivered video quality.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY

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A slide-show presentation responsive to this Request is provided in Exhibit 66-1 in the enclosed hard drive in the folder “Request 66.”

REQUEST 67

67. Explain, and provide and identify all documents, studies, surveys, forecasts, or estimates that substantiates the claim on page 12 (paragraph 37) of the Dr. Scott Morton Declaration that “each firm’s profitability and future success depends far more on its broadband business than its video business.”

Response to Request 67:

The following explanation incorporates by reference the materials included in the response to Request 65. Documents in support of the Company’s response to Request 67 are provided in the enclosed hard drive in the folder “Request 67.” Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

For several reasons, Charter’s “profitability and future success depends far more on its broadband business than its video business.” First, more customers buy broadband than video. As shown in Tables 1 and 5 of Dr. Scott Morton’s declaration, at the end of the first quarter of 2015, New Charter’s total broadband subscriber count exceeded its total video subscriber count. As stated in the declaration, the reverse was true in the first quarter of 2013. The Company expects this faster growth of broadband subscribership relative to MVPD subscribership to continue.

As shown in Table 4, broadband gross margins are significantly higher than video gross margins; video gross margins are approximately half those of broadband, on a percentage basis.

Third, [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END

HIGHLY CONFIDENTIAL INFORMATION] A large portion of the costs associated with providing video services are programming fees. Per video subscriber programming fees have increased rapidly in recent years, [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

Fourth, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

Charter's recent investments in broadband and future broadband commitments, as stated in Charter's Public Interest Statement, reflect the increasing importance of broadband Internet. Charter has invested over **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] in technology and infrastructure since the beginning of 2012. It has upgraded its network to all-digital, freeing capacity to increase in broadband speeds, among other consumer-facing benefits. In nearly 100% of its service areas, Charter's lowest offered broadband speed tier is 60 Mbps. Charter has committed to bringing TWC and BHN's networks all digital and offer 60 Mbps Internet across the entire footprint. Moreover, it has committed to invest at least \$2.5 billion in its commercial broadband infrastructure over the next four years and to build out one million line extensions within four years of Transaction close.

REQUEST 68

68. Explain in detail the claim made in the Dr. Scott Morton Declaration that New Charter would be willing to use its “broadband business” to promote OVDs and other edge providers given the potential impact on the Company’s video business and identify all documents, studies, surveys, forecasts, or estimates that Dr. Scott Morton relied upon to reach the claim.

Response to Request 68:

Charter incorporates by reference its response to Requests 12, 23, and 24. With regard to the “documents, studies, surveys, forecasts, or estimates that Dr. Scott Morton relied upon to reach the claim,” Charter incorporates by reference exhibits included with Request 67.

REQUEST 69

69. Provide all the underlying data, spreadsheets, calculations, and explain any assumptions necessary to obtain the figures on page 15, Table 4 of the Dr. Scott Morton Declaration.

Response to Request 69:

A complete Excel version of Dr. Scott Morton's Table 4 is provided in Exhibit 69-1 in the enclosed hard drive in the folder "Request 69." The Excel file shows all calculations and specifies each source and data point used to calculate Table 4. A complete set of the data and documents provided by each party for the preparation of Table 4 has been included in the folder.

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REQUEST 70

70. With respect to the survey of subscribers mentioned on page 22 (paragraph 52) of the Dr. Scott Morton Declaration:

- a. provide all documents relating to, and a copy of, the survey;
- b. separately describe and produce all documents relating to:
 - (i) the design (including sampling methodology and the procedures used to ensure a lack of bias);
 - (ii) all questions posed to survey respondents; and
 - (iii) all individual responses and the full results of the survey (including response rate);
- c. describe: (i) who conducted the survey; (ii) how the survey was conducted; (iii) how often the survey was conducted; and (iv) why the survey was conducted; and
- d. provide copies of any similar, periodic, or routine customer surveys conducted by the Company in the past.

Response to Request 70(a):

Documents in support of the Company's response to Request 70 are provided in the enclosed hard drive in the folder "Request 70." Charter does not possess a copy of the actual survey questionnaire, because as explained in response to Request 70(b)-(c), Charter did not conduct the survey; rather, Frank N. Magid Associates conducted the survey. However, Charter does possess the survey questions. Those questions are listed at the bottom of several slides in Exhibit 70-1 ("Magid Video Entertainment Study_Charter_April2015.pptx"). Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

Response to Request 70(b):

Information regarding the survey design, questions, and results is provided in Exhibits 70-1 and 70-2 in the enclosed hard drive in the folder "Request 70." Because Charter did not conduct the survey, it does not possess individual responses or response rates.

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Response to Request 70(c):

Frank N. Magid Associates conducted this syndicated research, which was an online survey. Charter purchased the results and paid Magid to increase the sample in the Charter footprint so Charter could review the results both within its footprint and nationally. Frank N. Magid Associates conducts this and other surveys annually and sells the syndicated reports to industry participants; Charter purchased the Fourth Quarter 2013 survey. Charter purchased this survey because it was a cost-efficient way to obtain insight on consumer demand in order to improve its video product offering. Additional information regarding these surveys is provided in Exhibits 70-1 and 70-2 in the enclosed hard drive in the folder “Request 70.”

Response to Request 70(d):

Charter also commissions an annual “Services Tracker” study, which compares Charter to competitor categories of service. The study is conducted by The Link Group, and it is customized for Charter; The Link Group does not sell the results to other clients. Most of the questions in the study remain constant from year to year, but some vary from year to year in response to industry trends. The portion of the 2014 Services Tracker survey addressing On Demand services is provided in Exhibit 70-3 in the enclosed hard drive in the folder “Request 70.”

REQUEST 71

71. Provide and identify documents, studies, surveys, or estimates sufficient to substantiate the claim on page 23 (paragraph 55) of the Dr. Scott Morton Declaration that “[a]n OVD foreclosure strategy that would blemish a broadband provider in the eyes of consumers would also reduce the demand for its broadband service from new customers, and would lead to less broadband growth.” Explain whether this claim applies to the Company. If the claim is applicable to the Company, please explain why and to what extent the claim is applicable to the Company.

Response to Request 71:

Charter incorporates by reference its responses to Requests 12 and 23, which provide specific details regarding Charter’s policies and plans with respect to OVDs. As a theoretical matter, demand for Charter’s broadband service would be significantly reduced if Charter were to lower the quality of its broadband service by degrading or foreclosing access to OVDs.

REQUEST 72

72. Produce all documents relied upon or referred to in the Declaration of Christopher L. Winfrey.

Response to Request 72:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 73

73. The Winfrey Declaration at page 3 (paragraph 8) states that New Charter will increase base speed tiers to “Charter’s current standard minimum of 60 or 100 Mbps at uniform pricing in Time Warner Cable and Bright House territories.” Provide the following:

- a. the number of the Company’s customers that have access to 60 Mbps broadband download speed and where they are located, how many have access to a speed of 100 Mbps and where they are located, and how many customers do not have access to at least 60 Mbps and where they are located;
- b. a description, and provide and identify documents sufficient to show what is meant by the term “uniform pricing” and how such a pricing system differs from the current pricing systems of TWC and Bright House;
- c. a description, and provide and identify documents sufficient to show, the Company’s pricing strategy for stand-alone broadband, bundled and triple-play services for 2011, 2012, 2013, 2014, 2015;
- d. a description, and provide and identify documents sufficient to show, the rationale for changing the Company’s pricing strategy as noted on page 18 of Charter’s SEC Form 10-K for the year ending December 31, 2012;
- e. a description , and provide and identify documents sufficient to show, the benefits of the 2012 pricing change, whether the Company’s pricing policy would apply across New Charter and why applying this policy across New Charter would be a benefit.

Response to Request 73(a):

Charter’s response to Request 73(a) is provided in Exhibit 73(a) in the enclosed hard drive in the folder entitled “Request 73,” which consists of information concerning maximum Internet download speed availability for residential Internet subscribers in Charter’s footprint at the DMA level. This data is sourced from information maintained in the ordinary course of business by the Company’s product department and in the Company’s Enterprise Data Warehouse (“EDW”) database concerning Charter’s residential subscribers.

The field “dma” shows the DMA for which the data is being provided. The field “<60mbps” shows the number of subscribers that have access to a maximum download speed below 60 megabits per second for the given DMA. The field “60mbps” shows the number of

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subscribers that have access to a maximum download speed of at least 60 megabits per second for the given DMA. The field “100mbps” shows the number of subscribers that have access to a maximum download speed of at least 100 megabits per second for the given DMA. Note that all Charter subscribers that have access to a download speed of at least 60 megabits per second also have access to a download speed of at least 100 megabits per second. For this reason the entries in the “60mbps” and “100mbps” are identical.

Response to Request 73(b):

Across Charter’s footprint, it currently offers a standardized price for each tier of service, bundle of services, and add-on service—regardless of market. For example, the current price for Charter’s Spectrum TV Select service without a promotion is \$59.99/month, regardless of where a subscriber is located. Likewise, the price for Charter’s minimum standalone broadband is the same across its footprint. The price for Triple Play Select is the same, irrespective of location. And the price of various add-on services, for example, international calling, is uniform across Charter’s footprint. This is what Charter considers to be “uniform pricing.”¹⁸⁷

There are some limited variations in the NPP service offerings by market. For example, a subscriber to Charter’s Spectrum TV Select service in St. Louis will receive different broadcast stations from a Spectrum TV Select subscriber in another market, and channel line-ups may vary slightly.¹⁸⁸ Similarly, in Charter’s flagship market, St. Louis, the minimum broadband speed is 100 Mbps and Charter’s Ultra broadband speed is 120 Mbps, whereas in other markets, Charter’s minimum broadband speed is 60 Mbps and its Ultra broadband speed is 100 Mbps. Charter’s

¹⁸⁷ Uniform pricing applies only to NPP customers. Pricing for legacy customers may vary by market.

¹⁸⁸ Variations in channel line-up and programming content have become less common with the transition to all digital, but some differences in content across markets still exist.

service tiers and bundles of services, however, are offered at uniform price points across its footprint.

Charter's understanding is that TWC and BHN have not adopted this pricing model: Both TWC and BHN have markets where services and bundles are offered at the same price, but, for each company, there is also at least some market-by-market variation in the pricing of services and bundles. Charter's understanding is that TWC in particular may charge different retail rates for its television service, and that TWC provides international calling at no extra cost as part of its voice offering in certain markets. Charter will have a better understanding of both TWC's and BHN's pricing—and issues that might arise with respect to migrating their subscribers to something similar to Charter's uniform NPP model—after consummating the Transaction.¹⁸⁹

Response to Request 73(c):

Charter's strategy is to offer high-quality services at competitive prices. Consistent with industry trends and norms, Charter bundles its Internet, video, and voice services. There are costs associated with delivery of any service to a location arising from the first sale itself, installation of products, subsequent customer calls and connections, servicing, maintenance, etc. Therefore, bundling services provided over the same connection is cost-effective for Charter, and drives ARPU and long-term revenue.

Charter sets its prices for standalone and bundled services based on its own costs and general market conditions. In addition to evaluating its costs of delivering services, the Company also looks to the practices of its competitors and peers. Bundle-based discounts are the norm in the industry, and an effective sales tool. Charter's sales force can demonstrate to new

¹⁸⁹ Charter plans to rebrand NPP as SPP after closing. As will be discussed at greater length, *infra*, and in response to Request 105, New Charter will launch SPP in TWC and BHN territories.

customers that they receive additional value from bundling services, both in terms of discounted pricing and the ease of obtaining services from a single provider.

In 2011, and through June 2012, Charter provided five tiers of Internet service (Lite, Base, Plus, Max, and Ultra) at different price points. From January 2011 until February 2012, tier pricing stayed constant, ranging from \$19.99 for Internet Lite to \$99.99 for Ultra Internet. In March 2012, Charter adjusted pricing for each speed tier, and those prices stayed constant through June 2012.

When Charter introduced NPP in July 2012, it offered a standalone Internet service for \$49.99/month and bundled Internet at \$49.99/month.¹⁹⁰ In February 2013, Charter increased the price for its standalone Internet service by \$5.00/month to \$54.99/month. Prices did not change for either standalone or bundled Internet from February 2013 until January 2015, when the price for standalone Internet increased by \$5/month to \$59.99/month, and the price for bundled Internet increased by \$2/month to \$51.99/month. In short, the price for Charter's Internet service has increased slightly, whether offered as a standalone service or as part of a bundle, since the launch of NPP. However, the smaller increase for bundled Internet service reflects the greater efficiency Charter can pass along to customers when providing multiple services.

Response to Request 73(d) and 73(e):

In 2012, Charter adopted NPP to provide consumers with high-quality service offerings, at competitive prices, without additional fees common in the industry. Under NPP, Charter offered simple, uniform pricing across its service area without data caps, UBP, modem fees,

¹⁹⁰ Prices discussed herein do not reflect promotional offerings. As will be discussed at greater length in response to Request 73, bundles were and continue to be offered at a greater promotional value due to the aggregate discounts provided over multiple lines of business.

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early termination fees, subscriber line and E911 fees. As a result, subscribers have a clear understanding of what services they are buying and the price that they will see on their bill.

As part of NPP, Charter also sought to improve the service by offering more HD channels, improved pricing for HD/DVR equipment, and increased broadband speeds. Subscribers are able to experience the value of the services being provided, and increases in prices under promotional offers are gradual. At the time of introduction, Charter anticipated that a product offering quality and uniform pricing would result in higher customer satisfaction and reduced churn. NPP also provided simplicity for Charter employees and made it easier for them to understand and explain Charter's offerings to customers. As a result, customers were more likely to subscribe to more services, which increased revenue per customers.

Since the adoption of NPP, Charter has tracked its performance relative to these goals using a variety of metrics and measurements. Charter has found that NPP has yielded substantial benefits to both Charter and its customers.

In the first half of 2013, Charter measured customer satisfaction among its NPP customers and legacy service customers and received more positive feedback from its NPP customers on multiple dimensions. In terms of overall satisfaction, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

**[END HIGHLY CONFIDENTIAL
INFORMATION]**

Charter has recorded, among other things, its average number of customer relationships and revenue per subscriber by month since the beginning of 2012. In terms of average customer relationships, in July 2012, when NPP was launched, Charter had 5,338,508 average customer relationships. By July 2013, that number had increased to 5,451,587 customer relationships; by July 2014, the number jumped to 5,699,776 customer relationships; and, as of July 2015, Charter had 5,965,834 customer relationships. Likewise, in July 2012, when NPP was launched, Charter's revenue per subscriber was **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]**. In July 2013, that number had increased to **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]**; in July 2014, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]**; and in July 2015, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]**. These results are consistent with Charter's expectations with the introduction of NPP. In addition to delivering strong customer value and top level services, NPP was introduced to maximize Charter's revenue through triple-play buy-ins and other services to deliver incremental ARPU and long-term revenue growth.

Charter has also tracked voluntary churn rates and total numbers of disconnects, year over year, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END

HIGHLY CONFIDENTIAL INFORMATION] And while any given month may or may not be meaningful, the overall trend line is significant: **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

Finally, Charter has also tracked **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY

CONFIDENTIAL INFORMATION] These results confirm that both legacy and new Charter

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customers have recognized the benefits of NPP, including simplified billing practices and better services at discounted pricing.

In short, Charter views the introduction of NPP as a success, and intends, when the Transaction is consummated, [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END

HIGHLY CONFIDENTIAL INFORMATION]. Generally speaking, Charter believes that both it and its customers benefit from simple pricing packages that do not involve multiple additional charges and line-item fees. Moreover, New Charter will complete the digitization of TWC and BHN's service areas, freeing capacity for more high definition and on-demand channels and increased broadband speeds, which will be incorporated into [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] offerings. As Charter rolls out [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] across legacy TWC and BHN service areas, TWC and BHN customers would have the option of staying on their existing plans or transitioning to [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION], which would be a win-win for those customers. New subscribers would benefit from the same type of high-quality product offering and uniform pricing that resulted in higher customer satisfaction for Charter customers.

Documents in support of the Company's response to Request 73 are provided in the enclosed hard drive in the folder "Request 73."

REQUEST 74

74. At page 27, the Application asserts that New Charter will make wireless a larger piece of its broadband strategy by establishing “widespread, consumer-friendly out-of-home Wi-Fi networks.” Paragraph 15 of the Winfrey Declaration states that “New Charter also will evaluate the merits of leveraging in-home routers as public Wi-Fi access points and will have greater resources to devote to such a strategy.” Describe and explain in detail, and identify documents that support and demonstrate:

- a. the Wi-Fi technology you plan to deploy and provide the number of in-home and the number of out-of-home Wi-Fi access points and their locations—in xvs format—by census block and latitude and longitude;
- b. your plans both with and without the transaction to expand both in-and out-of-home Wi-Fi access points, including your coverage and capacity objectives;
- c. how the transaction will allow New Charter to invest more efficiently in the technology and infrastructure to support delivery of a Wi-Fi network;
- d. how construction of your Wi-Fi network will enable New Charter to make wireless a larger piece of its broadband Internet access service strategy;
- e. why, and to what extent, leveraging in-home routers as public Wi-Fi access points is a benefit and will be part of New Charter’s Wi-Fi network;
- f. whether and why New Charter would have “greater resources to devote to such a strategy;”
- g. the services and products against which New Charter’s Wi-Fi access points will compete, including the identity of New Charter’s largest anticipated competitors.

Response to Request 74(a):

Charter, which was recognized in 2014 as the nation’s fastest WiFi provider,¹⁹¹ provides 802.11AC routers on a rental basis to its broadband subscribers to support in-home WiFi. There are currently approximately **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] in-home WiFi access points (all

¹⁹¹ See Allion Engineering Services USA, Allion USA Internet Service Provider Gateway Competitive Analysis at 11 (June 15, 2015).

of which have only private SSIDs). New Charter's current product plans intend to continue to evolve its residential WiFi product line in 2016 and beyond by deploying the latest technology.

Charter currently deploys 802.11N access points to provide out-of-home WiFi in approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] SMB locations in the St. Louis market, which was launched in 2015. Charter also had made initial product plans, pending budgetary approval, to initiate trials with strand-mounted outdoor access points in its existing footprint in 2016, but no final budgetary decisions have been made for 2016. New Charter will continue to evaluate new and evolving out-of-home WiFi technologies beyond 802.11N as they become available.

Charter has not yet determined the precise locations of its or New Charter's future out-of-home WiFi access points. In partial response to Request 74(a), Charter provides Exhibit 74(a) in the enclosed disk in the folder entitled "Request 74," which consists of the locations of Charter's current out-of-home Wi-Fi access points by census block, latitude, and longitude as of September 2015.¹⁹² This data is sourced from information maintained in the normal course of business by Charter's IT group.

In this file, the columns "address," "city," "state," "zip," show the address, city, state, and zip code of the given Wi-Fi access point. The column "census_block" shows the 15-digit census block identification number for the given Wi-Fi access point. The fields "latitude" and "longitude" show the geographic coordinates of the Wi-Fi access point. As of September 2015, Charter has 205 out-of-home Wi-Fi access points in total. Note that some locations have multiple Wi-Fi access points.

¹⁹² Charter interprets Request 74(a), insofar as it seeks location information regarding in-home WiFi access points, as limited to in-home routers used as public access points. None of Charter's in-home WiFi access points today meet that description.

Response to Request 74(b):

With respect to its *residential WiFi*, Charter currently provides in-home WiFi access to approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of its high speed Internet customers, and that percentage is growing. Charter's attach rate for September 2015 was [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] compared to [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] in September 2014. This reflects an industry-wide trend toward WiFi as the primary method of accessing broadband services. Charter expects to maintain an attach rate above [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] through year-end 2016.

If the Transaction is consummated, New Charter expects to be able to accelerate its own in-home WiFi deployment and to expand its go-to-market strategy to TWC and BHN markets. New Charter expects to achieve WiFi service tier attachment rates of [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] based upon TWC's and BHN's existing track record.¹⁹³

¹⁹³ Although not specifically requested in this Request request, Charter notes that in addition to its in-home and out-of-home WiFi service, Charter also offers *small business WiFi*—which is subscribed to by more than [BEGIN HIGHLY CONFIDENTIAL INFORMATION][END HIGHLY CONFIDENTIAL INFORMATION]

[BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] penetration of total hotel rooms within the Charter footprint with a fiber-to-the-hotel solution. [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL

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Charter recently introduced Spectrum WiFi as its *out-of-home* service. Charter has currently deployed approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] access points at SMB locations to support this network. Charter Internet subscribers can currently access the network through any Spectrum WiFi out-of-home access point, and non-subscribers can currently access the network on a trial basis for a limited time by providing minimal information (*e.g.*, e-mail address).

Without the Transaction, [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY

CONFIDENTIAL INFORMATION] The precise number of out-of-home WiFi access points Charter will be able to deploy absent the Transaction has not been determined at this time.¹⁹⁴

With the Transaction, New Charter will instantly gain approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] access points currently deployed by TWC and BHN (as of September 2015),

INFORMATION] Charter similarly launched its MDU-based WiFi nationwide in September 2015 as both a fiber and coaxial-based solution.

¹⁹⁴ As noted previously in response to Request 22, Charter is currently pursuing entrance into the Cable WiFi Alliance, irrespective of the Transaction. Charter expects that, if it deploys more out-of-home WiFi access points, efforts toward integration with the remaining members of the Alliance would move more quickly. For the same reason, integration would occur much faster with the Transaction, as New Charter would instantly have a wider out-of-home WiFi network.

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comprised of out-of-home access points in SMBs, as well as outdoor and venue access points. Following the Transaction, New Charter will continue to operate these access points and will deploy additional access points at outdoor and SMB locations. New Charter has committed to deploy over 300,000 out-of-home WiFi access points within four years of closing.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY

CONFIDENTIAL INFORMATION], with or without the Transaction. Such a network would yield substantial savings to customers, by allowing them to switch to smaller data plans. Charter has considered data from the Comcast-TWC and related sale and swap transactions to determine usage profiles for different out-of-home WiFi deployment scenarios to achieve this **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** goal. For reasons discussed at greater length below, achieving this goal is more likely with the Transaction, because of New Charter's increased scale as well as access to TWC's and BHN's knowledge, experience, and existing assets (including already deployed access points and back-end infrastructure).

Response to Request 74(c):

The Transaction will allow New Charter to leverage the existing WiFi capabilities of BHN and TWC, and allow it to facilitate a more efficient investment in a robust WiFi network. As a threshold matter, both TWC and BHN have operated WiFi networks for years and have the benefits of that experience, whereas Charter is still in the initial deployment stage for its own out-of-home WiFi network. New Charter will be able to utilize the skills and knowledge of

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TWC's and BHN's technicians, operators, salesforce, and strategists as it builds a WiFi network across the combined company's footprint. In addition, after the Transaction closes, there will be more detailed information sharing on the processes of attachment and installation of out-of-home WiFi access points, which should yield substantially greater deployment of access points than what Charter would be able to achieve on its own. For example, it is Charter's understanding that, because TWC is more mature in this space, TWC has much higher attach rates in SMBs for its out-of-home WiFi access points than Charter has been able to achieve to date. Moreover, New Charter will benefit from TWCs and BHN's knowledge and experience with deploying out-of-home WiFi access points to outdoor and venue locations, given that Charter's current WiFi strategy is limited to SMB locations.

New Charter will also have a substantially larger subscriber base over which to spread the fixed costs of building additional out-of-home WiFi access points and will also be able to leverage substantial investments by TWC and BHN in installed infrastructure components in multiple markets—including on properties and in markets geographically adjacent to Charter's footprint (*e.g.*, in California). New Charter therefore will be able to bypass investing in some back-end infrastructure components, which will allow it to invest more efficiently by focusing on the creation of new access points. For example, both TWC and BHN have installed wireless access gateways in multiple markets, and New Charter will be able to leverage those investments by immediately deploying new and additional access points in those markets. Similarly, TWC and BHN already provide for secure encryption at most of their access points, and New Charter will be able to utilize those investments from day one.

Finally, because of its scale, New Charter will have not only a larger subscriber base over which to spread fixed costs, but also greater price leverage with its equipment vendors. The

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combined company thus will be able to procure WiFi access points and other equipment on a more cost-effective basis given the volume of purchases that will follow the Transaction.

Response to Request 74(d):

New Charter's subscribers will derive a higher value from a broadband service package when their Charter WiFi is not limited to subscribers' specific residential and business service locations, but can be seamlessly accessed when they are away from home or work. In addition, more seamless WiFi access outside of home or work creates opportunities for Charter subscribers to switch to lower data plans with their mobile phone providers. To this end, New Charter has committed, following the Transaction, to build 300,000 out-of-home WiFi access points within four years of closing—in addition to gaining access to the legacy access points and back-end infrastructure that TWC and BHN have already deployed.

Moreover, as a member of the Cable WiFi consortium, New Charter will be able to deliver Internet service to customers at hundreds of thousands of access points outside of its service area. Out-of-home WiFi delivers on New Charter's broadband strategy to provide its customers connectivity wherever they may be, and membership in the consortium scales this strategy nationwide, which is not possible as a stand-alone facilities based provider.

Response to Request 74(e):

As will be discussed at greater length in response to Requests 78 and 99, Charter is

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY

CONFIDENTIAL INFORMATION]

Response to Request 74(f):

See response to Request 74(c), *supra*. New Charter will almost immediately earn more adjusted EBITDA, making the capital-intensive investments decisions associated with deployment of out-of-home WiFi access points more attractive. Moreover, New Charter will have a much larger subscriber base over which to spread the fixed-capital costs associated with access point deployment (including deployment of back-end infrastructure), driving the per-subscriber costs for further deployment of out-of-home WiFi down. In short, as described by Dr. Scott Morton, incentives will align for New Charter to devote greater resources to the construction of its out-of-home WiFi network than any of the three firms could on its own.¹⁹⁵

Response to Request 74(g):

Through the development of a robust Wi-Fi network, New Charter will be able to compete with several different types of entities.

First, with the expansion of Charter's out-of-home WiFi network, New Charter's broadband customers should be able to "offload" more of their broadband consumption from their current wireless data over a Mobile Network Operator's network to Charter's WiFi network at no incremental cost—potentially encouraging some customers to choose or switch to lower data plans when shopping at or among mobile carriers. New Charter will therefore compete with the four major wireless providers in the market for broadband Internet access services.

Second, New Charter will compete with AT&T, Verizon, CenturyLink, and Frontier Communications for both business customers and residential subscribers. These same entities will therefore also be Charter's key competitors in the market for Wi-Fi access point locations with SMBs and, if such a strategy is deployed, in homes.

¹⁹⁵ Dr. Scott Morton Decl. ¶¶ 10, 13.

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Third, New Charter will compete with Google Fiber for residential customers and Google WiFi for the provision of enterprise WiFi (*e.g.*, Starbucks locations).

And finally, AT&T and Verizon are anticipated to be New Charter's largest competitors with respect to its existing suite of products.

Documents in support of the Company's response to Request 74 are provided in the enclosed hard drive in the folder "Request 74."

REQUEST 75

75. Applicants assert that the post-transaction scale and more geographically aligned footprint will create increased opportunities for advertising customers to address broader regional audiences on multiple screens, and improve the business case for investment in developing more advanced advertising services, such as addressable advertising and dynamic ad insertion. Describe and explain in detail and identify documents that support and demonstrate:

- a. how and to what extent “advertisers that want to reach subscribers spanning a combination of Charter, TWC, or BHN” will benefit by the transaction, including their estimated savings or benefits;
- b. how and to what extent “advertisers that want to reach subscribers spanning a combination of Charter, TWC, or BHN” do not contract with you because of the transaction costs associated with buying advertising from “two or three cable MSOs” instead of a “single MSO”;
- c. how and why the transaction will increase opportunities for advertising customers, including whether the transaction will increase the total number of avails or number of avails per hour;
- d. how and why the alleged opportunities for advertising customers to address broader regional audiences on multiple screens and improvements in advanced advertising is a transaction specific benefit as compared to other options, such as partnering, participating in advertising interconnects, or other coordinated advertising efforts; and
- e. whether and how, as a result of the transaction, New Charter will reduce its participation in advertising interconnects or NCC Media, or reduce the number or proportion of avails it will contribute to interconnects and if so to what extent.

Response to Request 75:

A documents in support of the Company’s response to Request 75 is provided as Exhibit 75 on the enclosed hard drive in the folder “Request 75.”

Response to Request 75(a):

New Charter’s larger geographic footprint will enable advertisers seeking to reach customers in multiple DMAs to increase the scale of their advertising buys. Rather than buying from each of three companies—or from multiple interconnects—an advertiser will be able to make a single bulk purchase from the merged entity. Although Charter is unable to quantify the

savings or benefits to advertisers, advertisers that make larger-scale purchases often are able to negotiate for lower prices. Additionally, the aggregation of Charter, TWC, and BHN subscribers will enable advertisers to reach more subscribers with a single transaction, and thus will reduce the amount of administration on the front end of the buy (planning and campaign management) as well as the back end (reporting and posting results). For some advertisers and their agencies, less administration should lead to reduced costs and/or more productivity.

In addition, in DMAs **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** that currently do not have advertising interconnects, individual advertising customers wishing to reach Charter and TWC subscribers currently must make separate purchases from both companies—which, in turn, offer different advertising products and different prices. In these DMAs, New Charter will offer advertising customers the opportunity to reach both sets of subscribers in a single transaction. Although Charter is unable to estimate the savings, an advertiser will benefit by eliminating the incremental costs of transacting with two entities as opposed to one.

Response to Request 75(b):

Absent specific contact from an advertiser who has decided *not* to approach Charter to purchase advertising services, Charter would not have a ready means of identifying specific foregone sales caused by the more limited reach of its current footprint than some advertisers may wish to reach. Accordingly, Charter is not aware of specific instances in which advertisers have declined to contract with Charter because of the transaction costs associated with buying advertising from two or three MSOs instead of a single MSO, but believes it is likely that the transaction costs presently associated with coordinating advertising campaigns across multiple MSOs have the effect of reducing the potential market for Charter's advertising services.

Response to Request 75(c):

Charter expects that the Transaction will facilitate and broaden its introduction of advanced advertising opportunities. For instance, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY

CONFIDENTIAL INFORMATION] In addition, Charter expects that the merged entity's larger scale will substantially bolster the business case for developing and implementing advanced advertising platforms—which allow for improved accountability, more measurable engagement metrics, and better targeting—because a broader subscriber base will increase the company's expected return on investment in such platforms. The introduction of advanced advertising platforms will increase the total number of avails, as well as the quality of those avails. Further, the Transaction will enable broader standardization of advanced advertising products: although advertising products are already standardized for linear television, there is little standardization of advanced advertising products. By bringing the three merging entities together, New Charter will be able to serve a consistent, more powerful, and effective advanced product to advertisers wishing to reach the three sets of subscribers.

Response to Request 75(d):

Charter believes that the referenced improvements and opportunities could not be accomplished with advertising interconnects. Interconnects exist only for particular DMAs and thus cannot be used by advertisers seeking to reach broader regional audiences in a single transaction. Interconnects, moreover, require consistency across the products that separate companies offer—a consistency that, in Charter's experience, is extremely difficult to obtain for advanced advertising products.

The referenced improvements and opportunities also could not be accomplished via partnerships with other companies or other coordinated advertising efforts. Developing and implementing advanced advertising products requires that those products be consistent—and it would be extremely difficult to develop and implement consistent products for companies that have different consumer offerings; use different and unconnected network infrastructures; and may have different overall corporate priorities. A single merged company, by contrast, would have consistent consumer offerings, a single network, and a single set of corporate priorities—all of which would facilitate development and implementation of consistent advanced advertising products.

Response to Request 75(e):

New Charter does not intend to reduce its participation in NCC Media or advertising interconnects. As a general matter, New Charter does not intend to reduce the number or proportion of avails it will contribute to interconnects. In areas where Charter gains TWC or BHN subscribers as a result of the merger, however, it may slightly increase the percentage of avails that it uses itself, so as to better introduce these subscribers—who are new to Charter—to the merged company and its various offerings.

REQUEST 76

76. Produce all documents (except engineering and architectural plans and blueprints) discussing any plans of the Company or any other person for the construction or deployment of new facilities or equipment, closing of existing facilities, or the expansion, conversion or modification (if such modification has a planned or actual cost of more than \$1 million) of current facilities for providing each relevant service in each relevant area.

Response to Request 76:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 77

77. Describe and explain in detail and provide all documents relating to the effect of the proposed transaction on the Company's investment of resources in communications security and the Company's existing cybersecurity technologies and practices, including:

- a. the extent to which the proposed transaction would improve service quality and management of communications security and reliability risks in general;
- b. whether, and to what extent, the combined entity plans to utilize the National Institute of Standards and Technology (NIST) Framework for Improving Critical Infrastructure Cybersecurity;
- c. cybersecurity risk management challenges and improvements associated with the transaction, including combining network infrastructure, enterprise risk management functions, procurement processes, and communications security personnel; the current states and target states of cybersecurity risk management; and present cybersecurity gaps, and any actions, policies, and timeframes identified to close the gaps;
- d. the methods and technologies the combined entity will use to enable real-time awareness of cyber risk across its combined network; and
- e. how the combined entity will enhance communications security for its own customers and for the overall broadband ecosystem, including but not limited to the performance, integrity, and reliability of public safety communications imperatives that may rely on its networks or applications, such as E911, NG911, text-to-911, and emergency alerts.

Response to Request 77:

Cybersecurity is a priority for Charter and will remain so following the Transaction. Charter has integrated the National Institute of Standards and Technology ("NIST") Framework for Improving Critical Infrastructure Cybersecurity into its risk management process and complies with the International Standards Organization's cybersecurity standards. Charter proactively monitors its network for cyber threats, continually scans its systems for vulnerabilities, conducts cyber risk assessments on an ongoing basis, and maintains an updated suite of plans to instantly respond to a cyber incident. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY

CONFIDENTIAL INFORMATION] Charter's cybersecurity efforts are not limited to its own network and software: [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

Charter also makes the most of opportunities to share what it has learned about cybersecurity, as well as to learn from others. Charter cybersecurity personnel take part in multiple industry-specific cybersecurity working groups in which participants in a particular industry (*e.g.*, cable operators or Internet service providers) come together to share information on cyber threats and strategies. In addition, Charter representatives regularly meet with federal government officials to keep abreast of developing cyber threats and trends.

Charter cybersecurity personnel have not yet met with their counterparts at TWC and BHN to develop detailed cybersecurity plans (including cybersecurity investment plans) for the merged company; that process will commence immediately following the Transaction. That said, New Charter will continue the efforts outlined above and will draw on the best of the three merging companies' cybersecurity practices to ensure that the Company's cybersecurity program remains world-class.

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

Response to Request 77(a):

The Transaction will enable New Charter to take advantage of the best cybersecurity practices employed by Charter, TWC, and BHN. Immediately after the Transaction closes, Charter intends that top cybersecurity personnel from the three merging companies will

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collaborate to identify “best in breed” cybersecurity practices that the new Company can adopt on an enterprise-wide basis. Cybersecurity personnel will remain closely involved in implementing these practices as the three merging companies’ respective networks are integrated.

Response to Request 77(b):

New Charter will continue to utilize the NIST Framework for Improving Critical Infrastructure Cybersecurity as part of its risk management process. As noted above, Charter already has adopted the NIST Framework and incorporated it into that process. In addition, Charter understands that TWC and BHN have themselves each adopted the NIST Framework.

Response to Request 77(c):

Charter expects that cybersecurity personnel will be involved in virtually all aspects of the process of integrating the three merging companies into one, including the combination of the companies’ respective network infrastructures. Charter’s cybersecurity personnel provide ongoing information to the company’s enterprise risk management function. With respect to procurement processes, new products and services are assessed for risk before they come online. Communications security personnel (including contractors’ employees) are subject to rigorous background checks, onboarding and offboarding procedures, and procedures to limit access to Charter’s sensitive information. The Transaction will provide the merged company with an opportunity to enhance all of these measures by drawing on all three companies’ best practices and experience. That approach will be aided by the fact that leading cybersecurity personnel from the three companies regularly interact with each other in the setting of the working groups mentioned above.

With respect to the current and target states of cybersecurity risk management and cybersecurity gaps, the nature of cybersecurity is that threats are always evolving as

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cybercriminals devise new ways to defeat security measures. Charter, in turn, has a process in place—and will have a process in place following the Transaction—that identifies risks and seeks to remediate them promptly. Charter expects that, following the Transaction, the merged company will continue its efforts to identify and respond to emerging threats, including external collaboration with other companies and with federal government officials, as well as ongoing monitoring of its own systems for suspicious activity and anomalies.

Response to Request 77(d):

Like Charter today, New Charter will continue to **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]. As with other aspects of cybersecurity, Charter expects that real-time monitoring will leverage the collective experience and expertise of the three merging companies. In addition, because of the economies of scale associated with a larger company, Charter expects that the merger might allow it to put in place more dedicated resources for **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION].

Response to Request 77(e):

Charter regularly introduces new cybersecurity products and services for its subscribers to use. For instance, Charter distributes free anti-virus and anti-bot software designed to help identify and remediate malicious software. Additionally, because cyber threats are constantly evolving, Charter continually strives to improve protections on its own network. Charter will continue all of these efforts following the Transaction, incorporating the strongest aspects of each merging company's cybersecurity program. With respect to public safety communications,

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Charter's systems for handling public safety alerts are robust, redundant, and frequently tested; following the Transaction, Charter expects to identify and utilize the best practices of each company to ensure that these systems remain efficient and reliable throughout the new company's broader geographic footprint.

REQUEST 78

78. Describe and provide all documents relating to the following statement on Page 28 of the Application: “New Charter also will evaluate the merits of leveraging in-home routers as public WiFi access points and will have greater resources to devote to such a strategy” including:

- a. the Company’s existing privacy and security policies and practices for its customers, routers in its customers’ homes, and the impact using in-home routers as public Wi-Fi access points would have on those policies and practices;
- b. what data would be collected from users of New Charter’s Wi-Fi network, what data, if any, would be retained, and how such data would be secured;
- c. whether any user data would be made available to third parties or advertisers, and if so under what conditions;
- d. what notice (including when and how notice is provided) would be provided to users regarding use of their information, and how users would be notified in the event their data is improperly accessed; and
- e. what consent (including when and how such consent will be obtained) would be required for use of user information; and what privacy policy would cover user information.

Response to Request 78:

As part of the contemplated merger between Comcast and TWC, Charter would have acquired or provided services to several million former Comcast customers.¹⁹⁶ Some of those legacy Comcast subscribers had dual routers—*i.e.*, routers capable of simultaneously providing private and public WiFi service—in their homes. In anticipation of consummating those transactions, Charter began evaluating its options for managing those routers, including assessing the possibility of leveraging in-home routers as public Wi-Fi access points. **[BEGIN HIGHLY**

¹⁹⁶ See *In re Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Transfer Control of Licenses and Authorizations*, Exchange Transaction Public Interest Statement, M.B. Docket No. 14-57 (June 5, 2014); *In re Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Transfer Control of Licenses and Authorizations*, SpinCo Public Interest Statement, M.B. Docket No. 14-57 (June 5, 2014).

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[END HIGHLY

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Any responsive, non-privileged documents are being provided on the enclosed hard drive.

Response to Request 78(a):

Charter takes the privacy and security of its subscribers very seriously. And it takes such actions as are reasonably necessary to prevent unauthorized access by entities other than Charter to the personally identifiable information (“PII”) of subscribers. Charter uses security and/or encryption technology to secure sensitive PII when it is collected over its system. Charter similarly restricts access to its customer database and secures its content by the use of firewalls and other security methods. Charter limits access to databases containing customers’ PII to authorized employees and agents of Charter and certain limited categories of others where consent is given or where required by law. Further information regarding the information that Charter collects and shares, as well as the steps that Charter takes to safeguard privacy, are contained in Charter’s publicly published privacy policies.¹⁹⁷ Charter likewise advises subscribers, in its terms and conditions of service, that they “should take all appropriate security measures when using the Internet service.”¹⁹⁸

¹⁹⁷ See <https://www.charter.com/browse/content/your-privacy-rights>.

¹⁹⁸ See https://www.charter.com/browse/content/services#terms_2 (paragraph 15 contains “Additional Terms for Charter WiFi”). As noted, the existing terms of conditions of service

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The routers that Charter makes available to its Internet subscribers for in-home WiFi service uniformly have private SSIDs, structurally limiting Charter's ability to collect information about subscribers' broadband activities via the WiFi router—*i.e.*, what WebPages they view; what games they play; and what other content they access. Charter's Residential Services Terms and Conditions further set forth that, with respect to WiFi, Charter may collect "device identifiers, device name, device type, applications and protocols, connections, and traffic flows" for routine Internet management purposes. Charter additionally has "access to the network name and password . . . in order to provide support and diagnostic services"—*i.e.*, when a customer is having difficulties connecting or forgets his/her passcode. In short, Charter's current data collection from in-home routers relates exclusively to routine traffic management and assisting subscribers.

As Charter has not decided to use in-home routers as public Wi-Fi access points, it has not determined the effect such routers would have on Charter's privacy and security policies and practices.

Response to Request 78(b):

Charter's present practices and policies regarding data collection, retention, and sharing involving residential in-home WiFi access points is discussed in the Company's response to Request 78a. Charter has no plans for New Charter to change those policies with respect to its residential customers.

As described in response to Request 74, Charter currently has deployed approximately

[BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY

notify subscribers that "Charter reserves the right to preconfigure the Charter Managed Router to distribute a wireless Internet access point (*i.e.*, a Charter WiFi Hotspot) separate from the Home Network" but further sets forth that subscribers "shall have the right to disable such Charter WiFi Hotspot, and shall not be responsible for the security of the WiFi hotspot."

CONFIDENTIAL INFORMATION] out-of-home WiFi access points at SMB locations, and has developed certain practices and policies regarding data collection, retention, and sharing involving those out-of-home WiFi access points. If a Charter subscriber attempts to access Charter's existing out-of-home WiFi network through SMB access points today, Charter collects the subscriber's user identification and device information (*e.g.*, MAC address) to validate the device for current and future use. If a non-Charter subscriber attempts to access Charter's out-of-home WiFi network through one of these access points, he or she will be asked to provide certain additional information, including name, e-mail address, and other contact information, and Charter will also be able to access the individual's device information (*e.g.*, MAC address) for future authentication purposes. If the non-subscriber provides the requested information voluntarily, he or she will receive a passcode to connect for a trial period of 30 minutes. Charter may use that information for future marketing purposes, but does not provide any of that information to third parties, including advertisers. Charter also engages in routine measurement of usage of its out-of-home WiFi access points for traffic management purposes. Charter has no plans to change these policies or practices and expects that they will govern data collection, retention, and sharing involving New Charter's expanded out-of-home WiFi network.

As set forth above, with respect to the potential use of in-home routers as public WiFi access points, Charter has not yet decided whether to pursue such a strategy. Accordingly, Charter has not yet evaluated how the use of in-home routers as public WiFi access points might impact its data collection, retention, or sharing practices. Nor has Charter yet determined whether the use of in-home routers as public WiFi access points would require changes to Charter's existing policies governing data retention and security for use of its out-of-home WiFi network. Subject to those qualifications, as set forth above, Charter does not have any plans to

change its current policies or practices regarding data collection, retention, and sharing, and expects that New Charter's expanded out-of-home WiFi network will continue to be governed by them.

Response to Request 78(c):

As noted, Charter currently collects information from in-home WiFi routers only for limited access and traffic management purposes. Charter does not make any of that information available to advertisers or other third parties. There are no plans for Charter, or for New Charter, to change its residential in-home WiFi policy with respect to either data collection or data sharing with third parties.

Charter today receives subscribers' identifications and device information when they access Charter's out-of-home WiFi through an SMB access point, but likewise does not make any of that information available to advertisers or other third parties. It has no current plan to change this policy either. Finally, Charter today may receive and collect additional information from non-subscribers who voluntarily elect to share that information with Charter to access Charter's out-of-home WiFi network on a trial basis through an SMB access point. Charter may use this information for its own future marketing purposes, but does not make this information available to advertisers or other third parties. There are no plans for Charter, or New Charter, to change this policy.

Response to Request 78(d):

As noted, Charter publicly publishes its privacy policies, as well as its terms and conditions of service, online. The privacy policies provide notice to subscribers regarding the routine uses of their information—for example, to enable Charter to properly deliver services; to provide accurate and high quality customer service; to perform billing, invoicing, and collections; to provide updates, upgrades, repairs, and replacements; etc. The privacy policies

also notify residential and commercial subscribers as to who might see their information on an individual or aggregated basis and how long Charter retains subscribers' information, as well as what steps Charter takes to secure subscribers' information. Charter provides a copy of the relevant privacy policy (residential or commercial) to subscribers annually, whether or not the policy has been revised, and provides at least 30-days advance notice of any changes to the privacy policy. Charter has no plans to follow different practices or policies as New Charter with respect to providing notice to customers of changes to the privacy policies. Charter has promulgated, and continues to refine, its data breach response policy. In the event of any improper access or breach, Charter's (and New Charter's) response would involve multiple internal processes and multiple divisions and business units. As part of any response, notification would be provided to affected subscribers and/or to law enforcement and regulatory authorities, as appropriate, pursuant to applicable rules, regulations, and laws.

Response to Request 78(e):

When a residential subscriber agrees to the Residential Services Terms and Conditions, he or she provides consent for Charter to engage in certain activities, including the collection of limited information for access and network management purposes. Charter's residential subscriber privacy policy governs Charter collection, retention, use, and sharing of that information.

When a Charter subscriber seeks to access Charter's existing out-of-home WiFi network through an SMB access point, he or she voluntarily provides his or her user identification and passcode. Likewise, when a non-Charter subscriber seeks to access Charter's out-of-home WiFi network, he or she voluntarily provides additional information as requested by Charter to obtain a trial passcode.

REQUEST 79

79. Produce:

- a. all documents, data, spreadsheets, models, and underlying assumptions relating to the Transaction's potential cost savings, efficiencies, synergies, or benefits;
- b. all documents relating to any communications between any employee of the Company and any other person with respect to any potential cost savings, efficiencies, or synergies; and
- c. all documents provided by any other person to the Company relating to any such potential cost savings, efficiencies, or synergies.

Response to Request 79:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 80

80. Describe in detail, and provide and identify the documents that are sufficient to support and demonstrate: 1) the basis for the cost reductions claimed in Charter's July 10, 2015 *ex parte* letter; 2) any analysis that the Company or its agents conducted to estimate the programming cost savings that will result from the transaction, and are claimed as merger-specific benefits; and 3) whether, when, and how reductions in video programming costs will be passed through to consumers in the form of lower subscription prices.

Response to Request 80:

On July 10, 2015, Charter submitted an *ex parte* letter to the Commission stating that "New Charter expects to generate approximately \$800 million of run rate cost savings by the third year after the closing compared to the cost to operate the three companies separately."

Below, Charter explains in detail the basis for that prediction.

Charter's senior leadership team estimated the annual run-rate synergy using their decades of combined experience operating and managing various cable companies, Charter financial and operating data, publicly available financial and operating information for TWC, and limited diligence from BHN. During the synergy estimate process, Charter executives identified two primary cost centers at New Charter with significant synergy potential:

(i) programming costs, and (ii) indirect overhead costs. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] of the total \$800 million in total annual costs savings estimated to result from the TWC transaction. Charter estimated that approximately **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** million of annual operating cost synergies would result from its transaction with BHN and would primarily consist of the elimination of parent company charges and certain corporate overhead expenses. BHN already purchases programming under its affiliate relationship with TWC and benefits from technology and engineering development,

and non-programming procurement savings from the same affiliation. As a result and given lower materiality of the BHN transaction savings as compared to the TWC transaction, the following operating cost commentary focuses exclusively on the combination of TWC and Charter.

Programming Cost Synergies

Charter believes that the legal structure of the TWC Transaction and New Charter will allow the company to apply TWC's more favorable programming contracts/rates to Charter's video customer base, thereby reducing programming costs associated with Charter's existing video customer base by approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] million per year. While this annual synergy estimate assumes that the combined entity will benefit from TWC's current scale (*i.e.*, its current programming costs per video customer), it does not assume any additional cost benefit associated with the greater scale of New Charter (versus TWC on a stand-alone basis).

Because the details of TWC's existing programming contracts are not publicly available, Charter executives used TWC's total programming costs, and TWC's total video customer data disclosed in its publicly reported financial and operating data, to deduce TWC's programming costs per video customer per month. Using this figure and comparing it to Charter's programming costs per video customer per month, and Charter's total video customer count, Charter executives estimated the combined entity's annual programming cost savings.

There are a number of differences between Charter's and TWC's multichannel video products and channel offerings, as well as video customer reporting methodologies for external reporting. As such, Charter executives made the following cost and subscriber count

adjustments during the synergy calculation process in order to reach the most comparable programming costs per video customer per month for each company:

- TWC's total reported programming costs include costs associated with TWC's Los Angeles Lakers and Los Angeles Dodgers regional sport networks. Charter reduced TWC's total programming costs by an estimated **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** million when calculating TWC's programming costs per video customer for the year 2014, as Charter did not have comparable costs embedded in its programming costs.
- TWC and Charter use different subscriber reporting methodologies for external reporting purposes. As a result, the published video customer counts for each company were adjusted to make them comparable on an equivalent bulk unit ("EBU") basis, which is a common standard within programming affiliation agreements between multichannel video distributors and programmers for calculating programming costs. To account for these differences, TWC's reported video customer base for the year 2014 was multiplied by a factor of **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** and Charter's 2014 video customer base was multiplied by a factor of **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]**. These adjustments led to an average total video customer count for the year 2014 of **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** million for TWC, and **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

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million for Charter. These two figures were used as the denominators in the fractions to calculate programming costs per video customer per month for each company in 2014.

- Over the last several years, TWC has more actively marketed what is known in the cable industry as limited basic video service (a value-oriented video product) than has Charter. Limited basic video service offers fewer channels (primarily broadcast channels), and has a lower programming costs per customer than does expanded basic video service, a more robust video product, with more channels and a higher programming costs per video customer. Currently, TWC has a higher percentage of limited basic video customers versus expanded basic video customers in its video customer base, than does Charter. As such, Charter executives made adjustments to its programming synergy calculations in order to account for the impact that the two companies' different limited versus expanded basic video customer ratios would have on the calculation of each company's programming costs per video customer.
- Based on previous public statements made by TWC executives, and Charter management experience, Charter estimated that TWC's programming costs per video customer would grow by [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] in 2015. This assumption was made to adjust the publicly available, historical TWC programming costs to the appropriate "base" level for 2015, to compare against Charter's 2015 budgeted programming costs.

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- Diligence received in the previously announced BHN transaction¹⁹⁹ was also helpful in comparing the programming costs per video customer at Charter and TWC. Since BHN has a more simplified channel line-up, a high level of expanded basic video penetration, and Charter had access to exact bulk MDU counts for BHN, Charter was able to use the BHN diligence process to confirm the appropriateness of the various adjustments made during the programming synergy calculation process in order to reach the most comparable programming costs per video customer per month for Charter and TWC.

Based on the above assumptions, Charter executives estimated that the difference between TWC's and Charter's programming costs per video customer was approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] per video customer per month (or [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of Charter's programming costs per video customer per month). Using Charter's internally forecasted average video customer count, this [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] "gap" implies total programming cost synergies of over [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] million in 2016—assuming the transactions close at the end of 2015. Using Charter's multi-year internally forecasted video customer count, the synergy figure would be expected to grow to [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END

¹⁹⁹ The diligence was performed in connection with the Charter and Advance/Newhouse Partnership (the parent company of BHN) transaction announced on March 31, 2015.

HIGHLY CONFIDENTIAL INFORMATION] million in 2018. This forecasted figure was also the result of several additional assumptions:

- New Charter's business plan assumes the programming costs per video customer for current Charter video customers would grow at an **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** compound annual growth rate ("CAGR") over the next four years (*i.e.*, 2015-2019).

Programming costs per video customer for current TWC video customers were assumed to grow at an even higher rate to account for video product enhancements (*e.g.*, an all-digital video product offering, and more high definition channels) that current TWC video customers will be offered as part of New Charter, and anticipated changes to its video customer mix (*e.g.*, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

Also, during a pre-signing due diligence meeting between Charter and TWC management, supplemental TWC financial information was made available to Charter executives, providing Charter with additional confidence regarding its methodology in estimating programming synergies of **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** per video customer for the existing Charter video customer base within New Charter. Since no TWC programming contract details were made available to Charter executives during the meeting, a detailed post-closing programming agreement review will still be required to confirm the magnitude of the projected synergies.

Indirect Overhead Cost Synergies

Charter executives also assumed that New Charter will be able to generate cost synergies by **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION], to the overall annual run-rate synergy estimate of \$800 million per year.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

Another [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] million of operating cost savings were projected to come from a reduction in overhead and other operating expenses due to efficiencies created by New Charter's augmented scale. These efficiencies include the disposal of duplicative facilities, procurement benefits, and other operating costs related to overhead.

Charter estimated indirect overhead cost synergies using various per customer metrics, benchmarks, and comparing Charter's and TWC's total indirect costs bases to each company's revenues:

- The [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] million of assumed total indirect cost synergies were estimated to be [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of TWC's total indirect costs in 2015, or [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of New Charter's estimated indirect cost base in 2015.
- Charter executives believe that the cable industry offers significant economies of scale, such that the acquisition of cable systems and customers in various

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geographies by an existing cable operator should not increase that cable operator's overhead and indirect expenses in a pro rata fashion.

Given the relative sizes of TWC and Charter, and the fact that TWC currently provides BHN with many support functions (*e.g.*, procurement), Charter considered whether an acquisition of Charter's cable systems and customer base by TWC would have required TWC to meaningfully increase its existing corporate overhead, regional management overhead and associated indirect costs. Charter determined that TWC's existing infrastructure is sized such that TWC could integrate Charter's assets and systems without needing to add positions within TWC's current leadership team (*e.g.*, one CEO, one CFO, etc.) or administrative departments (*e.g.*, one legal department, one accounting department, one IT organization). Charter's analysis validated the conclusion that a combination of Charter and TWC would be able to generate overhead and indirect cost synergies that are approximately the size of Charter's existing overhead and indirect cost base today. Charter's annual corporate overhead costs currently exceed [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] million, [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION].

An additional approach used to verify New Charter's ability to achieve an additional [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] million of operating efficiencies was evaluating the

higher total indirect cost per customer relationship at TWC as compared to either Charter or BHN. Charter believes that TWC's operating and management practices provide room for meaningful cost improvements. For instance, by offering fully featured products in a simple package at a lower price point and using Charter's customer care and field operations best practices, Charter has achieved better quality service, and cost savings (*e.g.*, lower number of technical staff visits to customers, fewer customer phone calls).

The transactions will accelerate the growth of the combined entity by deploying Charter's best practices to the larger footprint. As such, the diligence process that is currently being conducted aims to develop plans for a seamless customer transition in areas such as billing, provisioning and network design and operations, and moving both TWC and BHN customers to Charter's Spectrum product set and pricing and packaging as quickly as possible, including the completion of the all-digital programs. The current diligence and integration planning work is focused on designing management structures, unified technology and common operating practices for the "end-state" and work plans that cover the period of time between the date of the closing of the transactions to the "end-state" target date. There is no current or planned effort for the integration planning to be a verification of Charter's synergy estimates. Charter executives believe the best method to realize the planned financial synergies is to focus integration planning and management attention on customer and employee-facing activities that are designed to make New Charter highly competitive as quickly as possible.

With regard to the Commission's question about pass-through of programming cost savings, Charter incorporates by reference its responses to Requests 87(b) and 87(c).

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Documents in support of the Company's response to Request 80 are provided in the enclosed hard drive in the folder "Request 80." Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 81

81. Applicants assert at pages 39-40 of the Application that “the value of the mass market advertising to New Charter increases as New Charter’s geographic coverage within a DMA increases . . . and [that] this increased advertising intensifies competition with rivals and benefits consumers.” Describe and explain in detail and identify documents and data that support and demonstrate:

- a. your current mass market advertising spend including the spend in each DMA;
- b. on a DMA-by-DMA basis how the transaction will change the mass market advertising spend;
- c. on a DMA-by-DMA basis, how the transaction will change the waste associated with your mass market advertising spend, including the dollar value of the waste; and
- d. your business plans and strategy for mass market advertising campaigns across your footprint and in each DMA.

Response to Request 81

Documents in support of the Company’s response to Request 81 are provided as Exhibits 81-1 to 81-3 on the enclosed hard drive in the folder “Request 81.” Charter will include any additional documents responsive to this Request in its production of documents to the Commission.

Response to Request 81(a):

Exhibit 81-1 shows, on a DMA-by-DMA basis, Charter’s advertising spend for 2015, including mass market advertising.

Response to Requests 81(b) and 81(d):

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]. Generally speaking, however, Charter intends to follow a subscriber-acquisition strategy that **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION].

The merged entity's expanded geographic footprint will enhance the feasibility of mass market advertising in numerous DMAs where Charter's relatively low percentage of homes passed makes mass market advertising less efficient today. Now, for instance, mass market advertising is relatively efficient for Charter in the St. Louis DMA, where Charter passes [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of homes. In the Los Angeles DMA, by contrast, Charter passes just [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of homes. For this reason, Charter does not advertise on television in Los Angeles, and even its radio advertising focuses on certain stations that reach Charter's footprint within the DMA. Following the proposed Transaction, however, New Charter will pass [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of homes within the Los Angeles DMA, making television the most efficient way of advertising the Company's services to prospective subscribers there.

Broadly, Charter expects that the percentage of advertising dollars that it spends on television might increase as a result of the Transaction (even within the DMAs where Charter is present today), because television advertising will become more feasible. Exhibit 81-2 identifies the DMAs in which Charter currently advertises on television (labeled "TV markets") and those in which Charter does not currently advertise on television despite being present (labeled "non-TV markets"). Exhibit 81-3 identifies the DMAs in which Charter expects that the new company will advertise on television, as well as those in which Charter expects the new company will not

advertise on television. Charter expects that, by making the company more visible to consumers, increased mass media advertising will create competitive pressure on other MVPDs to improve their services and reduce their prices.

Response to Request 81(c):

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL

INFORMATION] In all events, the Company's mass market advertising strategies are geared towards *avoiding* waste. For instance, as discussed above and as reflected in Exhibit 81-2, there are numerous DMAs in which Charter does not advertise on television. Often, the reason is that Charter's footprint covers significantly less than the entire DMA, so that the waste from television advertising would outstrip its benefits.

As a result of the proposed Transaction, Charter expects that television advertising will become its preferred mode of acquisition messaging in more DMAs because the company's new geographic footprint will reduce the potential for waste from television advertising in those DMAs. Exhibit 81-2 indicates whether Charter advertises on television in particular DMAs today, while Exhibit 81-3 indicates whether Charter expects to advertise on television in particular DMAs following the merger. **[BEGIN HIGHLY CONFIDENTIAL**

INFORMATION]

[END HIGHLY CONFIDENTIAL

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REQUEST 82

82. Describe and explain in detail and provide documents that support and demonstrate the following:

- a. gross margins and average margins on video; margins on broadband; and margins on voice; and
- b. how you allocate costs for shared infrastructure among those services.

Response to Request 82(a):

Charter management [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION].

Charter's internal financial reporting documents [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] A

spreadsheet entitled "August 2015 Management Accounts" which shows this information is provided in Exhibit 82-1 in the enclosed hard drive in the folder "Request 82."

As part of its annual budgeting process Charter management [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

**[END HIGHLY CONFIDENTIAL
INFORMATION]**

Charter’s internal budgeting and forecast process documentation provides a similar level of financial detail as the “Management Accounts” with respect to **[BEGIN HIGHLY
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[END HIGHLY CONFIDENTIAL INFORMATION]

Charter’s Board of Directors approves the company’s annual financial budget each year. Documents entitled “Board Presentation – Budget 2015” and the “Appendix Budget” are presented to the Board as part the annual budget approval process. These documents are provided in Exhibits 82-3 and 82-4 in the enclosed hard drive in the folder “Request 82.” The “Appendix Budget” **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

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[END HIGHLY CONFIDENTIAL INFORMATION] in the same manner as
Charter’s “August 2015 Management Accounts,” as discussed above.

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Response to Request 82(b):

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REQUEST 83

83. Describe and explain in detail, and produce and identify documents that support and demonstrate—including the Company’s current total number of call center and field technician operators—that as a result of the transaction New Charter will be able to “create thousands of U.S.-based jobs” by: (a) hiring for customer service call centers and field technician operations located throughout the country; and (b) returning Time Warner Cable call center jobs to the U.S.

Response to Request 83:

As a result of the Transaction, New Charter will create thousands of U.S.-based jobs by in-sourcing TWC call center jobs to the United States.

Charter currently has [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] internal full-time equivalent (“FTE”) call center positions, excluding corporate support department personnel. Of these positions, [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] are allocated to customer care and [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] are allocated to sales and retention. Charter also has [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] outsourced full-time employee call center positions.

Over the past three years, Charter has rapidly adopted a strategy of staffing call centers with internal Charter employees, rather than outsourcing them. At the beginning of 2013, approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]% of Charter’s call center jobs were outsourced to non-Charter employees, with [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]% of such positions filled by Charter employees. Today, Charter employees—all of whom work in the United States—fill

approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]% of Charter's call center jobs. [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

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To the best of Charter's knowledge, TWC and BHN currently out-source approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] and [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] call center jobs offshore, respectively. More specific details on TWC's and BHN's offshore outsourcing, which are accurate to the best of Charter's knowledge, are provided in Exhibit 83-1 in the enclosed hard drive in the folder "Request 83." New Charter's call center strategy will follow Charter's current strategy of in-sourcing call center jobs and moving that work to employees in Charter's call centers located in the United States. Although Charter expects that the total number of additional American call center jobs will easily be in the thousands, Charter has not yet determined the precise number of additional employees that will be necessary to perform the work of TWC's and BHN's currently-outsourced employees.

In recent years, Charter has also aggressively in-sourced its field technician employees. In 2012, Charter employed [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] installation and service technicians, and completed [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of such work in-house while outsourcing the remainder of this work to contractors. By the end of 2015,

Charter expects to employ [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] installation and service technicians, constituting [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of its field technicians, to have [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] of service visits done by in-house field technicians. Charter continues to hire more technicians in-house, and New Charter will continue this in-sourcing strategy with respect to field technician positions within the TWC and BHN footprints.

REQUEST 84

84. Describe and explain in detail and identify documents that support and demonstrate the Company's plans for embracing Time Warner Cable's commitment to diversity and inclusion in corporate governance, employment services, procurement and community partnerships, including, but not limited to, increasing Charter's engagement with minority, women, veteran and disabled-owned businesses that can supply it with the high quality materials and programming its customers demand.

Response to Request 84:

As stated in its Public Interest Statement, Charter will embrace TWC's commitment to diversity and inclusion in governance, employment services, procurement, and community partnerships. Details of these policies are described below.

From a governance perspective, New Charter will consider diverse slates of candidates as seats on its board of directors become available and will make an affirmative effort to increase the diversity of its board of directors.

In terms of demonstrating its commitment to diversity and inclusion in the area of employment services, New Charter will develop and disseminate a comprehensive diversity and inclusion policy; hire a senior leader to oversee workplace diversity and inclusion initiatives; provide training to its leaders to underscore the benefits of a diverse workforce and the expectation that they foster a culture of inclusion; establish and support workplace affinity groups that reflect the diversity of the workforce and the communities New Charter serves; and through active memberships in and support of organizations that assist with the vocational and professional development of minorities, women, disabled persons, the LGBT community, and veterans, New Charter will engage in broad outreach to the communities in which it operates to attract, hire, train, and retain diverse talent.

As to its commitment to supplier diversity, New Charter will actively collaborate with national and local supplier organizations/associations whose members consist of vendors that are

owned by minorities, women, disabled persons, and veterans; and maintain profiles of vendors that are owned by minorities, women, disabled persons, and veterans for the purpose of tracking New Charter's spend with all such vendors.

Finally, New Charter's commitment to the many diverse communities it serves will be reflected in its support of organizations whose mission is to aid the underserved, minorities, women, disabled persons, and veterans in those communities.

Charter is also talking to stakeholders in the community about additional steps New Charter might take to embrace diversity and inclusion.

REQUEST 85

85. Provide one unredacted copy of each Hart-Scott-Rodino 4(c) document and submit and identify all documents analyzing, estimating, justifying, providing the basis for, or otherwise discussing: a) the summary of synergies assumptions as stated in HSR 4(c)-7; and b) the estimates of programming cost savings as stated in HSR 4(c)-1 1.

Response to Request 85:

Documents in support of the Company's response to Request 85 are provided in the enclosed hard drive in the folder "Request 85." Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 86

86. Identify, describe and explain in detail, and identify documents that support and demonstrate for each of the claimed efficiencies, savings, new and improved products and synergies that are projected by the Applicants to result from the proposed transaction. These synergies included but are not limited to transitioning TWC's and BHN's cable systems to all digital, increasing speeds as a result of transitioning to digital; marketing services that are consistent with Charter's current package and pricing strategies; making available a broadband program to low-income consumers; and the continued expansion of TWC's 300 Mbps service. Submit a timeline for when these efficiencies or savings will be generated and recognized by the Company.

Response to Request 86:

Charter's Response to Request 80 explains the basis of Charter's prediction that its transaction with TWC will generate run-rate operating cost synergies of approximately \$800 million per year. Charter's responses to Requests 87 to 89 identify other efficiencies, savings, new products, or synergies. Charter incorporates the responses to those Requests by reference into this response.

The Commission has requested a "timeline for when these efficiencies or savings will be generated and recognized by the Company." The process of realizing the expected synergies differs based on the type and category of synergy.

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[END

HIGHLY CONFIDENTIAL INFORMATION] Charter's SVP of Programming, General Counsel and their respective departments are responsible for the implementation of the programming cost synergy plans after closing.

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Realizing the indirect overhead cost synergies is also directly related to the Transaction as the combination of the companies will allow for the elimination of duplicate costs. Charter management has assumed that it will take approximately two to three years to achieve the full annual run-rate of estimated indirect overhead synergies (*i.e.*, [BEGIN HIGHLY CONFIDENTIAL INFORMATION [END HIGHLY CONFIDENTIAL INFORMATION]). [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] Charter is confident, however, that it can realize the described synergies.

The overhead synergies are assumed to come at a cost to Charter. [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END

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These synergies will enable multiple public interest benefits, several of which are enumerated in this Request. These public interest benefits, and their corresponding timelines, are as follows:

Within **30 months of the close of the Transaction**, New Charter will transition TWC's and BHN's cable systems to all-digital networks.²⁰⁰

Within **30 months of the close of the Transaction**, New Charter's transition of TWC's and BHN's cable systems to all-digital networks will enable the combined company to reallocate network capacity for broadband use such that substantially all customers will be able to take advantage of at least 60 Mbps download speeds.

Within **12 months of the close of the Transaction**, New Charter will market services consistent with Charter's current packaging and pricing strategies, including its base 60 Mbps broadband service, to consumers in TWC's and BHN's areas where the cable systems are all-digital at closing. In TWC's and BHN's service areas that are not yet all-digital, New Charter will make those same offerings available once the systems are taken all-digital.

Within **six months of the close of the Transaction**, Charter will begin offering a low-income broadband option, and within **three years of closing**, Charter will offer this option across the New Charter footprint.

Charter will continue the rollout of TWC's ultra-high-speed 300 downstream Mbps package consistent with TWC's existing deployment plans.

²⁰⁰ It is possible that systems serving fewer than 1% of homes may not be taken all-digital due to the challenges in interconnecting to the remaining New Charter network.

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Building on the best aspects of three of the best cable video services in the country, New Charter will be rolling out innovative video services in the merged company's footprint. These include Charter's new, IP-capable Worldbox CPE; its cloud-based Spectrum Guide user interface system; and an advanced mobile video application that will combine the best features of the pre-Transaction companies' apps into one integrated app. The app will include the Spectrum Guide user interface, on demand and "download-to-go" functionality, and the nearly 300 live channels on TWC's TV application (TWC TV).

New Charter will build on the progress of TWC and BHN in establishing widespread, consumer-friendly out-of-home WiFi networks. Within **four years**, New Charter plans to deploy at least 300,000 new out-of-home WiFi access points across New Charter's footprint within four years. New Charter also will evaluate the merits of leveraging in-home routers as public WiFi access points and will have greater resources to devote to such a strategy.

For **at least three years**, Charter will not impose UBP or broadband caps.

The combination of New Charter's greater geographic reach and more rationalized footprint following the Transaction will position New Charter to better compete for enterprise customers, and thus improve competition in that sector.

The Transaction will also enhance New Charter's ability to serve advertisers. The Applicants each currently provide local, regional, and national businesses with the opportunity to advertise on their cable systems in individual markets.

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Documents in support of the Company's response to Request 86 are provided in the enclosed hard drive in the folder "Request 86." Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 87

87. To the extent the Applicants contend that the proposed transaction will result in variable or marginal cost savings, describe and explain in detail and identify documents that support and demonstrate:

- a. for each variable or marginal cost saving, why it should be considered a variable or marginal cost saving and provide the dollars per year and the dollars per subscriber per year savings;
- b. New Charter's plans to pass through any variable or marginal cost savings from the transaction to consumers; and
- c. the extent that Charter has passed through past changes in similar marginal costs.

Response to Request 87(a):

Charter believes there are two primary areas of variable costs saving that will result from the Transaction: video programming costs and service transaction costs.

First, the video programming cost savings described in response to Request 80 are variable cost savings. While there are exceptions, multichannel video distributors generally pay for video programming costs on a per video customer basis. As such, video programming costs are variable in nature, and driven by a multichannel video provider's total video customer count. The response to Request 80 contains a detailed description of video programming cost savings, and Charter therefore incorporates by reference the response to Request 80 into this response.

Second, the Transaction will result in service transactions cost savings. Service transactions costs are primarily comprised of field operations costs (*e.g.*, installation costs, disconnect costs and repair costs) and customer care costs (*e.g.*, sales costs, billing costs and repair call costs) and are primarily driven by customer contact volume. While they do include a recurring fixed cost component, *see* response to Request 80 (describing indirect overhead costs), service transaction costs generally rise and fall in relation to the volume of contact Charter has with both existing households who take a package of services and potential new customers,

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which is directly related to and varies with, Charter's total customer count, transactions per customer and new sales and installations.

Charter's success over the last three years has been driven not only by offering better products, packaging and pricing; it has also been achieved by offering better customer service. Over the last three years, Charter has invested heavily in call center and field operations infrastructure, and has developed increasingly insourced customer care and field operations workforces. Charter has brought back jobs from overseas call centers and hired thousands of people to improve service, both when on the phone with customers and when working inside customer homes. Charter's more insourced workforce is better trained, more properly incentivized, and better equipped to serve customers with standardized tools, test equipment and software. While Charter still has progress to make in delivering better customer service, these investments have had tangible results, validating the company's strategy. The greater focus on craftsmanship and better management has led to faster problem resolution times, and fewer calls per customer, both of which have been driving fewer customer transactions, including service calls, downgrades and customer churn. In addition to the cost savings mentioned above, by reducing customer transactions, Charter has increased the number of products per household, extended customer lifetimes, raised customer satisfaction, reduced its transaction costs per customer, and reduced its overall cost to service customers as percentage of revenue—all of which is leading to faster revenue and profit growth, higher margins, and a better return on investment despite the higher up-front investment.

Once the Transaction closes, Charter will deploy the same operating strategy, including its focus on reducing transaction volumes, that it has deployed across its own footprint starting in 2012, across New Charter's footprint. By reducing transaction costs per customer at TWC,

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Charter believes that TWC's non-programming operating costs as a percentage of total revenue can reach similar levels as Charter over time. Reduced service transaction volumes are not included in Charter's estimated synergies and would be in addition to the \$800 million in estimated synergies outlined and detailed in response to Request 80.²⁰¹

As a result of implementing Charter's operating model at TWC, TWC's EBITDA margin is projected to increase from **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** in 2015 to **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** in 2019, driving EBITDA from **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** billion to **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** billion. Similarly for BHN, the projected margin expansion is from **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** in 2015 to **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** in 2019. This margin expansion should be viewed as an incremental financial benefit to the transactions, over and above the estimated \$800 million in synergies. New Charter will consequently be better positioned to invest, compete with high quality products and services, and offer highly competitive pricing despite significantly rising input costs like programming.

²⁰¹ Also excluded from the \$800 million of cost savings attributable to the TWC Transaction are capital expenditure savings resulting from the purchasing of greater volumes of equipment, such as set-top boxes.

Response to Request 87(b):

Over the last three years, Charter has been able to offer relatively low-cost, high quality products with outstanding service to its customers because it continues to increase the efficiency of its operations. As Charter reduces service transaction costs, it effectively passes those savings on to customers in the form of better products at consistent retail prices, designed to be less expensive than what its competitors offer at the product level. It is effectively a virtuous cycle where, by offering competitively priced products with high quality service, Charter increases the number of products sold per household and reduces the incentive for customers to transact with Charter (*e.g.*, downgrade service or cancel Charter service altogether). This reduces service costs and subscriber acquisition costs incurred to replace churn, enabling Charter to offer high quality competitively priced services profitably, while continuing to invest in new products and services.

Charter management intends to apply the same operating strategy and pricing and packaging to TWC and BHN that it began deploying at Charter in 2012. Charter has already committed to make comprehensive and significant investments in New Charter's broadband capabilities. New Charter will transition TWC and BHN cable systems to all-digital networks.²⁰² This will enable the combined company to (1) reallocate network capacity for broadband use such that substantially all customers will be able to take advantage of at least 60 Mbps download speeds, and (2) to improve its video product offering by adding significantly more HD and on-demand options. Within a year of closing, New Charter will market services consistent with Charter's current packaging and pricing strategies, including its base 60 Mbps broadband service, to consumers in those portions of TWC's and BHN's footprint where the

²⁰² It is possible that systems serving fewer than 1% of homes may not be taken all-digital due to the challenges in interconnecting to the remaining New Charter network.

cable systems are all-digital at closing. In TWC and BHN service areas that are not yet all-digital, New Charter will make those same offerings available once the systems are taken all-digital within 30 months of closing the Transaction.

Response to Request 87(c):

As described in response to Request 87(b), Charter's ability to offer high quality, relatively low cost services and its fundamental strategy of selling packages of competitively priced products, while at the same reducing transaction costs, directly depend on each other. Charter's fixed overhead cost structure and reduced variable transaction costs per customer, allow Charter to offer its services at competitive price points despite video programming costs that are rising by double digits in percentage terms, growing Internet traffic costs, and the company's continued investments in advanced products and services—this is in essence, the pass-through of costs savings on to consumers.

Today, Charter offers over 200 channels of high definition TV (more than satellite TV offers), an interactive programming guide, and video on demand using a fully featured two-way digital set-top on every TV outlet in the home. Charter sells a minimum Internet speed of 60 Mbps,²⁰³ and in Charter's St. Louis footprint, Charter offers a minimum Internet speed of 100 Mbps. Using the same network, Charter also offers a fully featured voice product.

Charter offers these high-quality services, in simple, easy-to-understand packages that have no early termination fees, no modem rental fees, and no data caps or UBP, at highly competitive prices, including a fully featured triple play package of video, Internet and voice services at a starting price of just \$90 per month. Charter's enhanced product offering, combined

²⁰³ While a 60 Mbps or above base broadband speed is available to approximately 97% of Charter subscribers, some customers have chosen not to take advantage of the faster speeds and remain on legacy service plans with slower speeds.

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with its simple easy to understand packaging, has been central to the company's success in growing its customer base while at the same time selling more individual services (e.g., video, voice and Internet service) or primary service units to each individual customer.

With the implementation of its NPP strategy starting in the second half of 2012, Charter significantly lowered the prices associated with individual services within its bundled offerings. Following the launch of NPP in the middle of 2012, a typical Charter triple play customer paid **[BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]** less than they did before Charter's NPP was launched. *See* Exhibit 87-1 in the enclosed hard drive in the folder "Request 87" ("Packaging and Pricing Update"). In addition, Charter's customer satisfaction has improved with the introduction of the NPP and pricing and Charter's increased focus on delivering superior customer service. *See* Exhibit 87-2 in the enclosed hard drive in the folder "Request 87" ("Slides from H1 2013_H2 2013 CSAT Legacy vs New").

In the vast majority of cases, Charter's NPP offers a superior price/value proposition to consumers versus what is offered by Charter's national competitors. Charter's lead triple play product offers significant price advantages to consumers for a comparable product relative to products offered by Charter's nationwide competitors, including AT&T U-Verse and Verizon FiOS. For a detailed pricing comparison of Charter's products to its national competitors' products, *see* Exhibit 87-3 in the enclosed hard drive in the folder "Request 87" ("Rate comparison TWC-BH-Multi-comps.072715-LEGAL_Updates").

REQUEST 88

88. The Applicants contend that the proposed transaction will result in fixed cost efficiencies describe and explain in detail and identify documents that support and demonstrate:

- a. for each fixed cost saving, why it should be considered a fixed cost saving, whether it is a one-time or a recurring fixed cost savings, and provide the estimated fixed cost saving; and
- b. identify and explain each new investment, product, or service the savings will allow New Charter to undertake.

Response to Request 88(a):

Charter views the indirect overhead cost savings described and quantified in response to Request 80 as primarily recurring fixed-cost savings, as these costs are not directly related to the number of customers or other measures of output. The response to Request 80 contains a detailed description of indirect overhead cost savings, and Charter therefore incorporates by reference the response to Request 80 into this response.

Response to Request 88(b):

Charter has not established detailed product and investment plans for New Charter yet but has already committed to investing in taking TWC and BHN systems all-digital, rolling out its advanced digital technology, and investing in advanced CPE. New Charter will also raise the minimum broadband speed offered to 60 Mbps throughout the merged company's footprint, with pricing based on Charter's current model, which is less expensive for consumers than TWC's and BHN's comparable offerings.

Charter's increased scale will allow it to make investments it would not have made absent the Transaction. For example, New Charter will invest in out-of-home WiFi, deploying over 300,000 out-of-home WiFi access points, including in Charter's current footprint. In addition, New Charter will invest at least \$2.5 billion in the build-out of networks into commercial areas within its footprint beyond where it currently operates within four years of close. This will

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create additional, much-needed competition in the commercial sector. In addition, Charter will re-evaluate certain investments that were not pursued due to lack of scale in the past and continue to accelerate investments that benefit from the larger scale as discussed in response to Request 89.

REQUEST 89

89. Describe and explain in detail and identify documents that support and demonstrate any investments that:

- a. the Company currently plans to undertake and how, if at all, the increased scale will allow New Charter to undertake and accelerate these investments. Provide the original timeline and the accelerated time line each investment,
- b. the Company has delayed or canceled because it lacked a subscriber base large enough to support or justify the investment, and how the increased post-transaction scale will allow New Charter to undertake these investments. Provide the timeline for each of these investments by New Charter.

Response to Request 89(a):

Charter's investment philosophy since 2012 reflects its optimism regarding its ability to increase its scale, which in turn should increase the return profile for the company's fixed-cost investments by reducing average fixed cost per customer and per passing. Charter has not only significantly increased capital spending, but it has also meaningfully invested in projects and platforms (*e.g.*, the development of Charter's cloud-based video interface called Spectrum Guide and the development of Worldbox) that will demonstrate their full capabilities as Charter's scale increases. These investments are ultimately intended to lower incremental input costs, while enhancing Charter's future technology development capabilities. These innovations will benefit from increased scale as development costs can be amortized over a larger customer base. *See Exhibit 89-1 in the enclosed hard drive in the folder "Request 89" ("Revised Spectrum Guide Cost Comparison 6.18")*, which gives an example of how greater scale will reduce product development costs per customer. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

With the all-digital project now complete at Charter, New Charter's scale will provide the pro forma entity with the ability to apply a more capital intensive approach to taking both the TWC and BHN properties all-digital, than TWC and BHN are deploying today. While New Charter's approach will cost more, as it will deploy two way boxes on every incremental residential outlet versus the use of one way digital terminal adapters, Charter's approach will provide customers with a more robust video product offering upon completion of all-digital. Under Charter's all digital approach, TWC and BHN customers will be provided with advanced interactive guide functionality, greater VOD functionality and options, and enhanced content security on every incremental residential video outlet. Similarly, because Charter has completed

its project of bringing Internet speeds to a minimum of 60 Mbps, New Charter can focus all the resources of the combined company on completing the same project for current TWC and BHN assets.

However, despite Charter's optimism in increasing scale via opportunities to combine with other providers, there are investments that will be only accelerated once the Transaction closes and provide more scale. As described in Charter's response to Requests 3(b)-3(c) and 74, Charter is currently planning on launching out-of-home WiFi service in [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] markets beyond its current trial in St. Louis. If those product plans were still carried out and not subject to resulting budget cuts absent a transaction, they would result in the installation by year-end 2016 of approximately [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] access points in Charter's existing footprint, whose geographic separation currently makes such investments less economical than they would be in a more consolidated footprint at greater scale. The Transaction will allow these potential investments to be accelerated, with a build-out of an additional 300,000 hotspots in New Charter territory within 4 years of close. The Transaction will allow New Charter to leverage TWC's and BHN's existing back-end infrastructure and currently deployed out-of-home WiFi access points. Charter markets which will immediately benefit from an enhanced local footprint, include Dallas, Los Angeles, St. Louis, Greenville, Wisconsin and the Carolinas.

Response to Request 89(b):

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REQUEST 90

90. For each efficiency, synergy, cost-savings, or benefit you identify in response to these Requests, describe, explain, and produce and identify documents sufficient to show: (a) each alternative to the transaction by which the Company considered to achieve any of the claimed efficiencies, synergies cost-savings, or benefits; and (b) why the Company could not achieve that efficiency without the transaction.

Response to Request 90:

Charter incorporates by reference all documents in support of the Company's response to Requests 80, 85, and 86.

As explained in response to Request 80, Charter expects the Transaction to generate \$800 million in synergies by the third year after the closing, encompassing savings in both programming costs and indirect overhead costs. Charter believes that there is no alternative path for the company to realize these synergies, other than to acquire TWC or other cable operators that, when aggregated, would be equivalent to TWC's scale and scope. Based on Charter's conclusion that achieving such synergies would require a substantial acquisition, Charter did not identify any alternative to a transaction that would warrant consideration.

The programming cost savings are directly related to the merger, and **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

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Realizing the overhead synergies described in response to Request 80 is also directly tied to the Transaction, as the larger combined company will drive economies of scale and the potential for the elimination of duplicate costs. These overhead synergies could not be achieved by continuing to operate the companies as two standalone entities.

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As Charter's response to Request 86 explains, moreover, the Transaction will bring about a host of additional public interest benefits and efficiencies, such as out-of-home WiFi networks and expanded access to digital service. These benefits and efficiencies, too, could not be achieved without the Transaction. **[BEGIN HIGHLY CONFIDENTIAL
INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] Thus, for instance, Charter has committed to taking TWC and BHN all-digital and offering 60 Mbps base speeds within 30 months of the Transaction. Because Charter has already itself brought Internet speeds to a minimum of 60 Mbps, New Charter can focus the combined company's resources on completing the same project for current TWC and BHN assets. Similarly, the cost savings associated with the Transaction will allow the parties to more efficiently develop new mobile apps, establish new out-of-home WiFi networks, and stay on the cutting edge of innovation. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]
And New Charter's more rationalized footprint, making it an attractive source for enterprise services, will provide it with the business case to undertake the commercial build-out discussed at greater length in the response to Request 95.

New Charter's increased scale and scope also will give it market opportunities that it could not have achieved without the Transaction. For instance, New Charter can leverage its larger size to obtain capital expenditure savings resulting from the purchasing of greater volumes of equipment, such as set-top boxes. Such cost savings would be unobtainable unless Charter significantly increased its purchasing, and this could only occur if it merged with TWC or a similar entity. Furthermore, New Charter's greater geographic reach and enhanced footprint following the Transaction will position New Charter to better compete for enterprise customers, and thus improve competition in that sector. Again, this greater geographic reach and footprint

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could not be achieved unless Charter merged with an entity serving geographic areas that Charter currently does not serve.

REQUEST 91

91. For each new or improved product or service that the Company claims it will be able to offer as a result of the proposed transaction, describe and explain in detail and produce all documents on the amount the Company will need to invest and spend to provide the new or improved product or service, identifying each element of the cost and expenditure, including but not limited to, research, development, licensing fees, equipment and manufacturing costs.

Response to Request 91:

In response to other Requests, Charter has identified the following products and services as public interest benefits resulting from the Transaction:

Broadband: New Charter has committed to the deployment of extremely fast 60 Mbps broadband at uniform pricing throughout New Charter's footprint within 30 months of close (with timing to depend market-by-market on the state of the all-digital conversion in the legacy TWC and BHN territories). New Charter's costs for delivering on this commitment primarily involve taking TWC's and BHN's remaining non-digital territories all digital, deploying new broadband access technology, and annual capital investments in product development so that New Charter can remain the broadband speed leader. New Charter expects to realize manufacturing and equipment savings from volume purchases from vendors due to its increased scale.

Worldbox: New Charter will deploy Worldbox CPE throughout its footprint as quickly as possible (and completing deployment within 30 months), providing customers with advanced DVR and other time- and space-shifting capabilities, as well as greater compatibility with further set-top-box innovation. This deployment will involve equipment costs as well as costs for delivery, installation, repairs, and customer support. But the deployment of Worldbox is also expected to result in reduced marginal costs due to New Charter's larger volume purchases from vendors

and avoided cableCARD fees and platform fees.²⁰⁴

Spectrum Guide: New Charter also intends to make the Spectrum Guide available on Worldbox CPE, legacy Charter set-top boxes, and non-Charter mobile and immobile devices. Spectrum Guide will integrate OVDs' applications and content, seamlessly. There are fixed costs associated with deployment of the Spectrum Guide—including product development costs as New Charter seeks to make Spectrum Guide available on additional devices—as well as costs associated with the integration of third-party applications and content. But, as discussed by Dr. Scott Morton, the fixed capex costs per subscriber for Spectrum Guide will decline after the Transaction, due to the merged company's increased scale.²⁰⁵

Consolidated App: New Charter will develop and launch an integrated, Spectrum-branded application. With expanded capacity and functionality, New Charter will be able to take full advantage of in-home on-demand rights that it already has but does not currently utilize. New Charter will also incur costs to obtain in-home and out-of-home rights to programming. Here too, however, savings are expected due to Charter's increased scale after the Transaction.

Out-of-Home WiFi: New Charter has committed to the buildout of 300,000 new access points within four years at SMB and outdoor locations. This commitment entails fixed costs, in terms of both product development/testing and deploying back-end infrastructure, as well as costs associated with equipment purchases, installation, maintenance, network management, and repair. New Charter will be better able to amortize the fixed costs over its larger subscriber base, and will be able to drive the

²⁰⁴ See Dr. Scott Morton Decl. ¶ 22.

²⁰⁵ See *id.* ¶ 11.

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equipment costs down due to bulk purchases. According to Dr. Scott Morton, New Charter will have “an increased incentive to invest in WiFi technology and deployments.”²⁰⁶

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

Charter has not yet made firm or specific plans with respect to each product or service. The Company has endeavored to provide detailed information appropriate to the stage of development of each service or product listed above in Responses to Requests 3, 23, 24, 74, 78, 92, 93, 96, 99, and 105. Where requested, documents related to each product or service are provided in Exhibits to the referenced Requests. The Company will produce further responsive documents in its production to the Commission.

²⁰⁶ *Id.* ¶ 13.

REQUEST 92

92. Describe and explain in detail and provide all documents regarding:
- a. your investment in the Spectrum Guide and the Worldbox CPE;
 - b. how Charter “validated internally” the capability to run the Spectrum Guide over other equipment;
 - c. any plans to sell, provide, or license the Spectrum Guide to other persons or on any other person’s platform or CE device;
 - d. any plans to sell, provide, or license the Worldbox to other persons;
 - e. any plans to integrate Spectrum Guide and the Worldbox CPE post-merger to TWC and Bright House subscriber households on their legacy equipment;
 - f. any cost savings or more efficient customer service from deploying your cloud computing systems such as Worldbox, particularly by eliminating the need for technicians to install equipment and software; and
 - g. how the transaction will spur innovation in the further development of consumer devices such as set-top boxes, and of cloud computing services and products; and whether such innovations would be possible absent the transaction.

Response to Request 92(a):

By year-end 2015, Charter will have invested [BEGIN HIGHLY CONFIDENTIAL INFORMATION [END HIGHLY CONFIDENTIAL INFORMATION] in the software, hardware, and network to deliver the Spectrum Guide and Worldbox to its subscribers. [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]. Budget discussions are still ongoing, however, and 2016 spending has not yet been approved.

Charter’s new cloud-based interface, Spectrum Guide, provides the user experience on Worldbox as well as two-way legacy boxes, regardless of age. Because Spectrum Guide’s

functionality is cloud-based, consumers will benefit from its advanced features using their existing two-way set-top boxes without the wait, disruption, and expense of a new set-top box or a truck roll to the home to have a technician install a new set-top box. Spectrum Guide can be updated from the cloud at almost no cost whenever an improvement is available. This capability will offer significant consumer benefits over the legacy method of infrequent updates and even less frequent box set-up replacements. **[BEGIN HIGHLY CONFIDENTIAL**

INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] For example, Charter recently released a Spectrum Guide TV App on Roku.

Charter also recently unveiled Worldbox—an innovative set-top box that integrates with a new user interface. Worldbox utilizes a downloadable conditional access system and digital rights management platform. This enables Charter to source set-top boxes that lack costly proprietary security systems. Deployment of the Worldbox system throughout New Charter's territory will enhance the user experience and enable the more cost-efficient provision of service. Charter's downloadable security solution also supports the development of devices manufactured by third parties. Worldbox provides:

- An enhanced ability to run advanced over-the-top applications;
- Greater connectivity capabilities through the use of DOCSIS 3.0, providing 16 downstream channels and 4 upstream channels, as well as the ability to deliver IP video;
- A DVR with twice the storage capabilities, from ~90 HD hours (currently) to ~180 HD hours;

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- The ability to support next-generation HTML-based programming guides and applications; and
- Greater compatibility with Spectrum Guide, a streamlined and more intuitive guide, that has the ability to incorporate future innovative concepts without a need for new hardware.

Response to Request 92(b):

Charter intends to make Spectrum Guide available across Charter's legacy and new set-top boxes. To ensure compatibility with legacy set-top boxes, Charter will run the Spectrum

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL

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Ultimately, Charter plans to make Spectrum Guide available across non-Charter equipment, including mobile devices (*e.g.*, iOS and Android) and immobile devices (*e.g.*, Roku). These plans are not merely aspirational. At the International CES in January 2015, Charter unveiled the Worldbox and Spectrum Guide and demonstrated a proof-of-concept of the Spectrum Guide running on a Roku box.²⁰⁷ Since that time, Charter has completed plans for the release of Spectrum Guide on Roku, which launched October 12, 2015. Charter will continue to develop and refine Spectrum Guide's compatibility with other mobile and immobile devices.

Response to Request 92(c) and 92(d):

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

²⁰⁷ See Jeff Baumgartner, *Charter Unveils Its 'Worldbox,'* Multichannel News Online (Jan. 6, 2015), <http://www.multichannel.com/news/technology/charter-unveils-its-worldbox/386685>.

[END HIGHLY CONFIDENTIAL INFORMATION]

Charter will offer the hardware, software, specifications, and codes necessary to implement its downloadable security solution on an open, royalty-free basis. Charter also will work with any third-party manufacturer seeking to develop retail devices that will use the downloadable security system being deployed. With respect to the Worldbox itself, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

Response to Request 92(e):

Charter will deploy Spectrum Guide across New Charter's footprint as quickly as possible, beginning with all-digital systems and continuing as systems are digitized, which will be within 30 months of closing.

Response to Request 92(f):

Charter has not performed an analysis on the cost savings from deploying a cloud based system that is compatible with both legacy set-top boxes and new Worldbox CPE vis-à-vis the traditional model of technician-delivered installation of and upgrades to equipment and software. But Charter expects to realize back-end and customer service efficiencies resulting from Charter's ability to provide upgrades and software to the Worldbox remotely. Moreover, Dr. Fiona Scott Morton has analyzed the cost per subscriber to deploy Spectrum Guide and found that the Transaction will dramatically reduce that cost because of New Charter's increased scale.²⁰⁹ New Charter will therefore have an increased incentive to deploy Spectrum Guide across the merged company's footprint.

²⁰⁸ It is possible, however, that Active Video Networks could license Spectrum Guide to its customers.

²⁰⁹ Dr. Scott Morton Decl. ¶¶ 11-12.

Response to Request 92(g):

The Transaction will facilitate further investment and innovation in the area of set-top boxes and programming guides in several ways.

First, as previously noted, New Charter will have a substantially larger subscriber base over which to spread its fixed costs, including research and development. New Charter's resulting incentives to invest in innovation are discussed at greater length in response to Request 96. Charter's recent investment in Spectrum Guide and Worldbox ([**BEGIN HIGHLY CONFIDENTIAL INFORMATION**]

[**END HIGHLY CONFIDENTIAL INFORMATION**]) demonstrates that improving the viewer experience will be a priority at New Charter as well. Budget discussions are still ongoing, however, and 2016 spending has not yet been approved.

Second, because New Charter will have a larger subscriber base, the company will be a more attractive partner for innovation. As Dr. Scott Morton described, certain innovations are profitable only if they can access a great number of subscribers. "One of the benefits of the [Transaction] is that New Charter will become an additional option for innovators that need a large scale for viable entry."²¹⁰ New Charter will have different strategic priorities and incentives than other providers such as Comcast and AT&T, positioning itself as a viable alternative (or additional) partner with innovators and thus a driver of competition. New Charter will have the ability to deliver the best products and services throughout its footprint, and that opportunity will make Charter more attractive to the highest caliber of researchers, designers, and developers than the three distinct subscriber bases standing alone.

²¹⁰ Dr. Scott Morton Decl. ¶ 29.

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Third, as discussed at greater length in response to Request 96, under Tom Rutledge's leadership, Charter has expanded dramatically in terms of product development and pure research and development. The total capital that Charter invested in product development in 2012 was [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]. That number has increased dramatically during Tom Rutledge's tenure, from [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] in 2013, to [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] in 2014, and an expected [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] in 2015—*i.e.*, over [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] growth in product development capital in merely three years. Similarly, the product development team headcount has increased from [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] (including both contractors and full-time employees) in 2012 to [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] in 2015. Moreover, the Transaction will allow New Charter to field an expanded products and R&D team that is expected to feature a higher ratio of full-time employees to contractors than Charter currently employs. Charter's product development team is currently comprised of [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] full-time employees; following the Transaction, New Charter's target would be to increase this percentage.

REQUEST 93

93. Describe and explain in detail the anticipated advanced mobile application referenced in paragraph 14 of the Winfrey Declaration, including its features, and the benefits and negatives of each feature. Identify and describe the “best features” from each Applicant’s current application that would be included in the new mobile application. Describe and explain in detail how the transaction will affect the development and deployment of this mobile application. Identify documents that support and demonstrate your response.

Response to Request 93:

Charter, TWC and BHN have each deployed an advanced TV application onto mobile—and, in the case of TWC, immobile—devices. Unsurprisingly, each application has different features. New Charter will merge the best of these applications into one easy-to-use service.

At the outset, the Transaction will have immediate positive effects on the development and deployment of TV applications, and will decrease the time to market by allowing New Charter to leverage the best resources and infrastructure across the combined company. New Charter will be able to integrate existing features from TWC and BHN—and, by doing so, will be able to focus development efforts and investments on identifying and launching new customer features to improve the application experience. New Charter will also be able to spread its investment more efficiently across a larger subscriber base.

In short, the Transaction will allow for the combination of the applications and the back-end technologies from across the three companies, ensuring that New Charter will deploy a world-class advanced TV application for all of its subscribers.

Among the key features and capabilities of the TV application are the following:

- **Maximum Device Reach:**

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- **Most Live TV in Home:** TWC has up to 300 live television channels available for its subscribers, relative to Charter's approximately 160 channels. New Charter will [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

- [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

- **More Out-Of-Home Content Access:**

- Charter currently offers 40+ live TV channels out of the home, whereas to the best of Charter's knowledge TWC has 31. New Charter will continue to gain access to more out-of-home rights to eventually reach parity with its in-home offering. The chances of successfully accomplishing this goal will increase as a result of New Charter's greater footprint.
- Charter offers approximately 4,500 out-of-home on demand titles. New Charter will [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

- Charter currently has download-to-go capability, which enables a subscriber to play content when not connected to a network. Charter will [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

- **TV Control:** The application [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

- **Advanced Search and Discovery:** Charter [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

- **Easy Access:** Charter has deployed an “auto-authentication” feature into its TV application, eliminating the need for customers to enter a username and passcode when in the home. New Charter will deploy this feature to all of its subscribers.

Documents in support of the Company’s response to Request 93 are provided in the enclosed hard drive in the folder “Request 93.”

REQUEST 94

94. Describe in detail, and identify documents that support and demonstrate: which multi-location businesses New Charter will be able to provide business services to that it would have been unable to serve prior to the transaction. In your description, please provide detailed information about the scale or characteristics of these potential customers, by geographic unit (such as DMA or MSA) or by each individual business, such as: revenues, proportion of the market, and how revenues that could be earned from the potential customer(s) compare to the Company's total business services revenues.

Response to Request 94:

To date, the geographic limitations of their respective networks have hindered Charter, TWC, BHN and other cable companies from competing effectively against other providers, such as incumbent telephone providers, that have networks with national scale and scope that can better serve larger business customers that have multiple office locations. Where a customer's business spans multiple areas served by different cable companies, in fact, a cable company with a limited footprint is often not an option at all. Nor, as explained in Response 22, is a partnership among multiple cable companies likely to be appealing.

The Transaction will help overcome these limitations by replacing the limited footprints of the individual applicants with the expanded footprint of New Charter. Exhibit 94-1—which contains information on businesses located within the TWC, BHN, and Charter footprints as identified by Dun & Bradstreet, Equifax, and InfoUSA—provides additional information regarding the expected improvements in New Charter's ability to serve enterprise customers. As the document demonstrates, Charter currently can serve [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

An expanded footprint for New Charter will enable it to better compete against national enterprise service providers for business customers with multiple locations in different areas. Because of Charter's limited experience in serving large business customers, it does not currently have extensive information about what specific businesses New Charter will be able to better serve, but it does know that it will have opportunities in many areas. Of particular note, New Charter's expanded footprint will enable it to provide an attractive unified service to regional and super-regional businesses whose offices are clustered in areas now split between the Charter, TWC, and BHN footprints. Although Charter is unable to quantify the anticipated revenue increases resulting from these added capabilities, there plainly is ample room for growth. As reflected in Charter's most recent Form 10-Q, services provided to commercial customers accounted for just 11% of Charter's revenues in the first half of 2015. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]

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A document in support of the Company's response to Request 94 is provided as Exhibit 94-1 on the enclosed hard drive in the folder "Request 94." Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 95

95. Describe and explain in detail, and identify documents that support and demonstrate how the transaction will “facilitate increased investment in enterprise capabilities, including the investment of “at least \$2.5 billion in the build-out of networks into commercial areas within [New Charter’s] footprint beyond where [you] currently operate,” and describe how those plans differ from your investment plans made prior to the transaction.

Response to Request 95:

As further described in response to Request 94, the ability to successfully compete for multi-location customers that require Ethernet Wide Area Network (“WAN”) services is highly dependent on the number of locations a service provider can serve directly in an on-net manner. When considering network expansion investments, a key factor in the financial analysis is the expected revenue from the business location or customer. To the extent that multiple products can be sold to a customer, the network expansion to a specific location becomes more financially viable and attractive. There are three primary connectivity services that are sold to enterprise customers: Internet access, phone services and WAN services. The ability to serve multi-location customers is not a large factor in competing for Internet or phone customers. However, the ability to serve a significant number of multi-location customers’ sites is a critical competitive factor in winning WAN customers.

As further described in response to Request 94, the Transaction will improve New Charter’s ability to service multi-location WAN customers. This enhanced ability will enable New Charter to bundle WAN services into more customer locations, which will lead to higher revenue per location and improved financial returns, promoting network expansion to more buildings.

Charter has committed to invest at least \$2.5 billion in the build-out of networks into commercial areas within four years of closing. In the normal course of business, Charter would not plan its commercial investment so far in advance nor would it make commitments to build

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without determining that each individual project meets internal return on investment hurdles.

However, the scale and synergies New Charter will achieve make committing to this build-out now possible.

REQUEST 96

96. In paragraph 18 of the Winfrey Declaration it states that the New Charter would be able to attract a “top-tier research and development team” post-transaction. Describe and explain in detail and identify that support and demonstrate:

- a. why New Charter’s current research and development team is not “top-tier;”
- b. your plans, including estimated costs, for recruiting and hiring research and development employees and expanding your research development team post-transaction; and
- c. Charter’s current ability to contract or partner with a third party with the capabilities to conduct high quality research and development.

Response to Request 96:

Under Tom Rutledge’s leadership, Charter’s commitment to research and development and product innovation has been unparalleled. As noted in response to Request 92, in the last three years, Charter’s annual investment in capital development has increased [BEGIN

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[END HIGHLY

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INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] in

2012 to an expected [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] in 2015. This reflects Charter’s interest in developing its own products and solutions in order to provide the best products and services to consumers. Charter also has attracted top-tier talent. The creation and recent launch of the Worldbox and Spectrum Guide are examples of what this capital commitment and talented personnel can achieve.

However, a company of Charter’s size is limited in the research and development budget and headcount it can support—and therefore the amount of innovation it can foster.

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New Charter's size will enable it to have a larger R&D budget and department because these fixed costs can be spread across a larger subscriber base. New Charter will therefore be able to invest in research and development more substantially and efficiently, creating further incentives for New Charter to continue Charter's commitment to innovation. As Dr. Scott Morton explains, fixed-cost investments will have a lower per-subscriber cost for New Charter. And "[b]ecause of the economic benefits of scale, New Charter will have an incentive to incur much larger fixed cost investments in order to create a new product or service than any of the stand-alone firms. This increased incentive . . . will lead to the creation of new products and services that would not have been invested in by the stand-alone firms."²¹¹

The Transaction will make New Charter a more attractive employer to product and application researchers, designers, and developers. While Charter's product development team currently is made up of [BEGIN HIGHLY CONFIDENTIAL INFORMATION]54%[END HIGHLY CONFIDENTIAL INFORMATION] contractors and [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] full-time employees, New Charter's post-closing goal is to augment Charter's existing product development team with more full-time employees. New Charter's larger subscriber base will provide potential employees and third-party innovators the opportunity to work on products and services that will impact a much larger audience than they currently can reach separately through Charter, TWC, or BHN, making New Charter a more attractive permanent home.

Moreover, the larger size of the company will make Charter more attractive to third-party developers and speed delivery times. At times, Charter's smaller size has made it more difficult

²¹¹ Dr. Scott Morton Decl. ¶ 10.

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to work with third parties to update or develop new products and services. Increasing Charter's customer base will also increase the economic incentive for third parties to work with Charter on research and development and to prioritize work for the company.

Documents in support of the Company's response to Request 96 are provided in the enclosed hard drive in the folder "Request 96."

REQUEST 97

97. On pages 20-21 of the Application, the parties state that “Consumers and shareholders alike are best served by a business strategy that seeks to increase the reach, speed, reliability, and consumer-friendliness of broadband offerings. New Charter will continue Charter’s pursuit of that strategy after the merger . . .”

- a. Describe how Charter defines and measures service reliability. Based on that definition and measure, describe the current status of Charter’s service reliability.
- b. Describe how New Charter will define and measure service reliability after the merger, and the effects that definition and measure will have or is likely to have on service reliability.

Response to Request 97(a):

Charter views broadband service reliability as referring to a service’s ability to consistently provide customers high-quality services across a wide range of metrics. An Internet service is reliable if it consistently provides customers with Internet access at the speed subscribers expect pursuant to the tier they subscribe to. To this end, Charter monitors its network and proactively prevents congestion at interconnection points.

Charter uses a variety of tools to evaluate service reliability, including internal measures, such as on-net speed testing and the monitoring of traffic at interconnection points; external measures, such as SamKnows, a broadband measurement service; and customer surveys. Based on these measures, the current status of Charter’s service reliability is strong. For example, Charter’s all-digital network transition has freed capacity to enable higher broadband speeds. In addition, as described in response to Request 54, Charter continues to invest in its network and maintain practices designed to proactively avoid congestion at peering points with other providers. As a result, Charter has achieved results on SamKnows that are superior to its competitors.

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Response to Request 97(b):

Charter will continue to define and measure service reliability after the merger by using the same tools. Based on its own experience of improved service reliability following digitization, Charter expects service reliability in the TWC and BHN networks to improve once Charter takes those systems all-digital.

REQUEST 98

98. Recent trade press articles have alluded to Charter's entry into the mobile wireless space. Explain and discuss in detail and provide all supporting documents to show how, or whether, this current transaction effects New Charter's entry into the mobile wireless service space.

Response to Request 98:

Charter is in the early stages of evaluating pathways for competing in the market for wireless broadband service. The strategic rationale for Charter's entering the market would be to deliver ubiquitous connectivity to customers, irrespective of location. For Charter, entry presents the opportunity to continue to grow in terms of customers, revenue, and margin, making entry a win for both Charter and its customers.

Charter has preliminarily determined that there is sufficient room in the wireless value chain for another entrant to generate cash flow. Moreover, the market is open to disruption by Charter's offering a differentiated service from the mobile network operator ("MNO") incumbents. A move into wireless is also consistent with Charter's inside-out strategy of building on its successes in delivering the fastest in-home WiFi service and an industry leading minimum speed of 60 Mbps to the vast majority of its residential customers. Ultimately, Charter hopes to accomplish this while still offering subscribers a lower total household bill through bundling.

Charter expects that the Transaction would facilitate and potentially expedite Charter's entry into the market in two respects. First, the Transaction would instantaneously provide New Charter with more out-of-home WiFi access points from TWC and BHN. Absent the Transaction, it might take Charter months or years to enter these markets. Moreover, as discussed in response to Requests 3 and 74, New Charter will be able to leverage TWC's and BHN's legacy infrastructure investments—Wireless Access Gateways ("WAGs"), and encrypted

connections—to focus its spending on new access points, which will immediately result in an expanded, and denser, network. This WiFi coverage would make New Charter a more attractive partner for a mobile virtual network operator (“MVNO”), which would facilitate entry through a bundled “quad-play” package.

Second, the Transaction will provide Charter with a larger subscriber base over which to amortize fixed costs, creating incentives for further expansion into the wireless market. Entry into the wireless market could involve fixed-cost investments in research and development and spectrum acquisition—to cite just two examples. *See* Response to Request 3c. The Transaction will make those investments more attractive based on the simple principle that New Charter, a larger company, will be able to innovate more efficiently due to lower per-customer fixed costs. New Charter will also instantly earn more adjusted EBITDA, making capital-intensive investment decisions, such as evaluating the acquisition of spectrum, more attractive as part of a long-term competitive strategy.

REQUEST 99

99. On page 28 of the Application, the parties state that “New Charter also will evaluate the merits of leveraging in-home routers as public WiFi access points and will have greater resources to devote to such a strategy.” Provide all documents discussing the conversion of in-home routers to dual-purpose public WiFi access points, and if such a strategy is implemented describe and explain in detail and identify and provide documents sufficient to show:

- a. how you will ensure customer security and privacy;
- b. the impact this plan would have on subscriber power consumption and service reliability;
- c. how New Charter will maintain a separation between the public and private functions of in-home routers;
- d. how New Charter will prevent in-home service degradation in cases of heavy demand for public WiFi;
- e. the potential liability issues for the in-home subscriber if the public side of a home router becomes compromised, including law enforcement access to homes with compromised routers;
- f. how New Charter would prioritize private use by the customer over public use and how this would be done;
- g. how New Charter would protect its customers’ in-home routers from malicious activity and service degradation;
- h. how New Charter customers would be informed of this plan, including whether they will be able to opt out;
- i. the potential benefits, including subscription discounts and other customer rewards, to New Charter’s in-home subscribers whose home routers are dual-purposed as public WiFi access points; and
- j. whether home routers have sufficient security to be dual-purposed as public WiFi access points.

Response to Request 99:

As noted in response to Request 78, as part of the contemplated merger between Comcast and TWC, Charter would have acquired or provided services to several million formerly

Comcast customers.²¹² Some of those legacy Comcast subscribers had dual routers—*i.e.*, routers capable of simultaneously providing private and public WiFi service—in their homes. In anticipation of consummating those transactions, Charter began evaluating its options for managing those routers, including assessing the possibility of leveraging in-home routers as public Wi-Fi access points. When the Comcast transaction was terminated, Charter deprioritized the consideration of in-home routers as public Wi-Fi access points.

A decision to use in-home routers as public Wi-Fi access points would come from senior Charter executives, and to date senior personnel have not even authorized a comprehensive review of the technical and other issues that might arise from such a strategy. Accordingly, Charter does not have any policies regarding the use of in-home routers as public WiFi access points.

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

²¹² See *In re Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Transfer Control of Licenses and Authorizations*, Exchange Transaction Public Interest Statement, M.B. Docket No. 14-57 (June 5, 2014); *In re Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Transfer Control of Licenses and Authorizations*, SpinCo Public Interest Statement, M.B. Docket No. 14-57 (June 5, 2014).

REQUEST 100

100. Produce all documents (except documents solely relating to environmental, tax, human resources, OSHA, or ERISA issues) relating to the proposed transaction and provide:

- a. a timetable for each transaction, a description of all actions that must be taken prior to consummation of each transaction, and any harm that will result if the transactions are not consummated;
- b. a description of (including the rationale for, and identification of all documents directly or indirectly used to prepare the Company's response to this sub-part) all plans for changes in the Company's operations, structure, policies, strategies, corporate goals, financing, business, officers, executives or any other area of corporate activity as a result of the transaction; and
- c. a description of any other terms or conditions of the transaction that are not reflected in the transaction agreements between the parties.

Response to Request 100(a):

In response to this Request, the Company submits the Registration Statement on Form S-4, the final amendment of which was filed with the Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended, on August 20, 2015 (the "Registration Statement"), which includes the Company's proxy statement. *See* New Charter Registration Statement, *available at* <http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-SECText&TEXT=aHR0cDovL2FwaS50ZW5rd2l6YXJkLmNvbS9maWxpbmcueG1sP2lwYWdIPTEwNDQ5MzI5JkRTRVE9MCZTRVE9MCZTUURFU0M9U0VDVElPTI9FTIRJUkUmc3Vic2lkPTU3>.

On May 23, 2015, the Company, New Charter, and TWC entered into an Agreement and Plan of Mergers ("TWC Merger Agreement"). As provided in Article IX of the TWC Merger Agreement and as further described in the Registration Statement, the TWC transaction is subject to certain conditions, including, but not limited to:

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- **Registration Statement Effectiveness:** The Registration Statement must have become effective under the Securities Act of 1933. This condition has been satisfied.
- **HSR Clearance:** The Company and TWC filed Premerger Notification and Report Forms, as required by the HSR Act, on June 24, 2015. On July 24, 2015, TWC and the Company each received a request for additional information and documentary material under the HSR Act.
- **FCC Consents:** The FCC must consent to the transfer to the Company of all TWC FCC licenses. Charter and TWC filed all such FCC applications on June 25, 2015.
- **Local Franchise Authority (“LFA”) Consents:** Consents of all applicable local franchise authorities representing at least 85% of TWC’s aggregate video subscribers must be obtained. On or about July 2, 2015, TWC and Charter, collectively and in some cases individually, filed applications seeking consent to transfer control of video licenses with approximately 640 LFAs.
- **State Public Utility Commissions Consents:** Certain state public utility commission consents must be obtained. Charter and TWC submitted applications in 14 states where approval is required.
- **No Injunction:** There must be no order, injunction, restraint or prohibition by any court or other tribunal of competent jurisdiction which prohibits consummation of the proposed merger.
- **Shareholder Approval:** There are several shareholder approval requirements including that the TWC Merger Agreement must be approved by Charter

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shareholders holding a majority of the outstanding shares of the Company's capital stock and TWC shareholders holding a majority of the outstanding shares of TWC's capital stock. Charter filed its definitive proxy statement on August 20, 2015, which included a record date of August 14, 2015 for the special shareholders' meeting was September 21, 2015.

On March 31, 2015, the Company and Advance/Newhouse entered into a Contribution Agreement, which was amended on May 23, 2015 in connection with the execution of the TWC Merger Agreement, providing for the acquisition by Charter of BHN. As provided in Article VI of the Contribution Agreement and as further described in the Registration Statement, the BHN transaction is subject to certain conditions, including, but not limited to:

- **TWC Transaction:** The transaction contemplated in the TWC Merger Agreement must close subject to limited exceptions as set forth in Section 6.1(g) of the Contribution Agreement.
- **HSR Clearance:** The Company and Advance/Newhouse filed Premerger Notification and Report Forms, as required by the HSR Act, on June 24, 2015. On July 24, 2015, each of Advance/Newhouse and the Company received a request for additional information and documentary material under the HSR Act.
- **FCC Consents:** The FCC must consent to the transfer to the Company of all BHN FCC licenses. Charter and BHN filed all such FCC applications on June 25, 2015.
- **LFA Consents:** Consents of all applicable local franchise authorities representing at least 80% of BHN's aggregate video subscribers must be

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obtained. On or about July 2, 2015, Charter and BHN filed applications seeking consent to transfer control of video licenses with approximately 21 LFAs.

- State Public Utility Commissions Consents: Certain state public utility commission consents must be obtained. Charter and BHN submitted applications in three states where approval is required.
- No Injunction: There must be no order, injunction, restraint or prohibition by any court or other tribunal of competent jurisdiction which prohibits consummation of the proposed merger.
- Shareholder Approval: There are several shareholder approval requirements, including that the issuance of shares to Advance/Newhouse must be approved by a majority of the Charter shares voting at the special meeting. As discussed above, the record date for the special meeting was August 14, 2015, and the shareholders' meeting was September 21, 2015.

Information responsive to this Request is also contained in the Public Interest Statement.

Failure to consummate the Transaction would result in harm because the substantial public benefits from the Transaction would not be achieved. These include:

- extending Charter's broadband-focused, pro-customer model to millions of new customers, while deploying the best that Charter, TWC, and BHN have to offer in broadband, video, and voice technology;
- investing at least \$2.5 billion in the build-out of networks into commercial areas within the combined company's footprint beyond where the companies

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currently operate, creating additional, much-needed competition in the commercial sector;

- building out one million line extensions of networks to homes in the combined company's franchise areas, which will either provide service to currently unserved areas or will increase competition with existing providers;
- increasing competition in the mobile data market by deploying over 300,000 out-of-home WiFi access points;
- transitioning TWC's and BHN's cable systems to all-digital networks, enabling the combined company to reallocate network capacity for broadband use such that substantially all customers will be able to take advantage of at least 60 Mbps download speeds, and to improve the video product by adding significantly more HD and on-demand options;
- marketing services consistent with Charter's current packaging and pricing strategies, including its base 60 Mbps broadband service, to consumers in TWC's and BHN's areas where the cable systems are all-digital within six months of closing, and, in TWC's and BHN's service areas that are not yet all-digital, making those same offerings available once the systems are taken all-digital;
- committing for three years not to block or throttle Internet traffic or engage in paid prioritization;
- committing for three years not to charge consumers additional fees to use specific third-party Internet applications, and not to impose data caps;

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- committing for three years to engage in reasonable and non-discriminatory interconnection and submit any interconnection disputes to the FCC for resolution on a case-by-case basis;
- increasing the geographic reach and density of the combined company's presence in multiple regions, allowing it to compete more effectively with large phone companies for large and other multi-location customers who need connectivity in disparate locations or to a more complete regional footprint;
- lowering the per-customer fixed costs of investments, facilitating the deployment of new technology and advanced infrastructure;
- continuing to create thousands of U.S.-based jobs by hiring for customer services call centers and field technician operations located throughout the country, and returning TWC call center jobs to the United States; and
- building on Charter's, TWC's, and BHN's commitments to good corporate citizenship, including by expanding TWC's commitment to diversity and inclusion and BHN's initiatives to expand broadband adoption and close the digital divide.

Finally, the public would suffer significant harm if the transactions are not consummated for certain reasons. Under the terms of Merger Agreement entered into with TWC on May 23, 2015, Charter must pay a \$2 billion termination fee to TWC if the Merger Agreement is terminated as a result of the failure to satisfy or waive certain conditions related to, among other things, regulatory approval. This payment, if required, would reduce the resources available to Charter that would otherwise be devoted to driving even more competitive and innovative broadband, video, and voice services. The substantial transaction costs that Charter would incur,

including interest costs of about [BEGIN HIGHLY CONFIDENTIAL INFORMATION

[END HIGHLY CONFIDENTIAL INFORMATION] per day during the pendency of the Transaction, would also not be recoverable and would further exacerbate these negative consequences of failing to close the Transaction.

Any additional responsive, non-privileged documents are being provided on the enclosed hard drive.

Response to Request 100(b):

Plans for changes in operations, structure, policies, strategies, corporate goals, financing, business, officers, employees, or other areas of corporate activity are still in a preliminary state and final plans have not yet been developed.

Response to Request 100(c):

There are no terms or conditions of the Transaction that are not reflected in the merger agreement between the parties or other documents supplied in response to this Request.

REQUEST 101

101. Produce all vertical foreclosure analysis, or other vertical competitive effects analysis, econometric modeling, or similar analyses, including those regarding market concentration or pricing, that have been undertaken by the Company or any consultant or expert hired by the Company to analyze the effect of either the proposed Transaction, or any product or service, including all documents and data used in these analyses.

Response to Request 101:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 102

102. Produce all documents relating to the effects of geographic rationalization or clustering with respect to the operation of cable systems and the provision of programming, advertising, broadband Internet access, network interconnection, or other services on such cable systems. Describe how geographic rationalization or clustering enabled by the transaction will affect competition, your costs, the products and services New Charter will offer, and any pass through to consumers of any anticipated cost savings.

Response to Request 102:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 103

103. Provide a list of all of the Company's terms and code words used to refer to the transaction, the Applicants, AT&T's acquisition of DIRECTV, Comcast's proposed acquisition of Time Warner Cable, Charter's prior proposed acquisition of Time Warner Cable, Charter's prior proposed acquisition of Bright House, the proposed swaps between Charter and Comcast, and the transactions associated with, and the creation of, the entity to be named GreatLand Connections.

Response to Request 103:

For the Transaction, Charter is aware of the following terms and code words:

- The Transaction itself: [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] was used for a very brief period only)
- Charter: [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]
- TWC: [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]
- BHN: [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]
- Liberty: [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]

For the Comcast/TWC/Charter transaction, inclusive of the related proposed swaps between Charter and Comcast and the creation of GreatLand Connections, Charter is aware of the following terms and code words:

- The Transaction itself: [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]
- Charter: [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]
- TWC: [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END

HIGHLY CONFIDENTIAL INFORMATION]

- Comcast: **[BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]**
- Liberty: **[BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]**

Charter's prior proposed acquisition of Bright House was referred to internally as

[BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION] Bright House was known as **[BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]**

Charter is unaware of any other code names associated with any other transaction.

REQUEST 104

104. Provide a list of all of the agreements reference in Section 5.18(a) of the Agreement and Plan of Mergers, which was attached as Exhibit B to your merger application. For each agreement listed, indicate whether the agreement has been provided to the Commission (and if so as a part of what submission) or to the Securities and Exchange Commission (“SEC”) (and if so as a part of what SEC submission).

Response to Request 104:

- Stockholders Agreement by and between Liberty Media Corporation and Charter Communications, Inc. entered into in connection with the purchase by Liberty Media Corporation of shares of Class A common stock of Charter Communications, Inc. dated March 19, 2013 (incorporated by reference to Exhibit 1.1 to the current report on Form 8-K of Charter Communications, Inc. filed March 19, 2013 (File No. 001-33664)). *See* Exhibit 104-1 in the enclosed hard drive in the folder “Request 104.”
- Amendment to Stockholders Agreement by and among Liberty Broadband Corporation, Liberty Media Corporation and Charter Communications, Inc., dated effective as of September 29, 2014 (incorporated by reference to Exhibit 10.1 to the current report on Form 8-K of Charter Communications, Inc. filed on October 14, 2014 (File No. 001-33664)). *See* Exhibit 104-2 in the enclosed hard drive in the folder “Request 104.”
- Amended and Restated Stockholders Agreement, dated March 31, 2015, by and among Charter Communications, Inc., CCH I, LLC, Liberty Broadband Corporation, and Advance/Newhouse Partnership (incorporated by reference to the Current Report on Form 8-K of Charter Communications, Inc., dated April 1, 2015). *See* Exhibit 104-3 in the enclosed hard drive in the folder “Request 104.”

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- Second Amended and Restated Stockholders Agreement, dated May 23, 2015, by and among Charter Communications, Inc., CCH I, LLC, Liberty Broadband Corporation, and Advance/Newhouse Partnership (included as Annex C to Charter Communications, Inc. joint proxy statement / prospectus, dated August 20, 2015). *See* Exhibit 104-4 in the enclosed hard drive in the folder “Request 104.”
- Investment Agreement by and among Charter Communications, Inc., CCH I, LLC and Liberty Broadband Corporation, dated as of May 23, 2015 (updates and supersedes prior filing) (included as Annex D to Charter Communications, Inc. joint proxy statement / prospectus, dated August 20, 2015). *See* Exhibit 104-4 in the enclosed hard drive in the folder “Request 104.”
- Contribution Agreement by and among Liberty Broadband Corporation, Liberty Interactive Corporation, Charter Communications, Inc., and Nina Corporation I, Inc., dated as of May 23, 2015 (included as Annex E to Charter Communications, Inc. joint proxy statement / prospectus, dated August 20, 2015). *See* Exhibit 104-4 in the enclosed hard drive in the folder “Request 104.”

As noted, each of the filings was previously provided to the SEC. Charter did not previously file these documents with the FCC.

REQUEST 105

105. Describe in detail the Company's plans to migrate TWC and Bright House subscribers acquired as a result of the proposed transaction, including but not limited to:

- a. a projected timeline for the transition of all the acquired customers on to new video, voice, data or bundled plans, to all-digital format, and to a minimum of 60 Mbps download speeds;
- b. all projected expenses related to the integration and transition of TWC and Bright House systems and subscribers into Charter's ecosystem;
- c. any plans for relevant services and devices necessary to access the services to be offered to the acquired subscribers, including but not limited to (1) a detailed description of the Company's plans to provide these subscribers with devices that may be used on the Company's network and any associated charges to an acquired customer who is required to acquire such a device, and (2) the service plans, bundled services and pricing to be offered to the acquired customers;
- d. any plans for the acquired customers to retain their current service plans and if so, the length of time the acquired customers may remain enrolled under their existing service plans;
- e. the features and services accessible from each device that will be offered to acquired customers;
- f. any services or features that an acquired subscriber received from its previous provider that it will not be able to obtain from the Company after the consummation of the proposed TWC transaction and the proposed divestiture transactions, and plans to introduce that lost service or otherwise compensate the subscriber; and
- g. all documents discussing customer migration and transition of the acquired customers to the Company.

Response to Request 105(a):

Following the closing of the Transaction, New Charter plans to make significant investments in TWC's and BHN's infrastructure. Currently, Charter is engaged in ongoing diligence and needs to evaluate TWC's plans and customer communications in order to determine precise timing. Charter's inventory of set-top boxes may also affect the schedule for completing the all-digital conversion. For these, and other, reasons, a detailed timeline is not yet

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developed and will not be finalized before closing, and any goals that Charter has established for the migration of TWC and BHN customers necessarily are fluid to account for new information and data, which Charter is receiving and evaluating on a daily basis (which will continue to be the case through closing), and evolving market conditions. However, as set forth in the Public Interest Statement, Charter has committed to upgrade both TWC's and BHN's cable systems to all-digital within 30 months of closing, and continues to believe that is reasonable timeframe.

With respect to the service offerings, Charter will need to train customer service staff and technicians as well as harmonize operating platforms prior to marketing services consistent with Charter's current packaging and pricing strategies in TWC and BHN service areas. Within 12 months, Charter has committed that it will start marketing such services, including its base 60 Mbps broadband service, to consumers in the TWC's and BHN's areas that are all-digital at the time of closing. As noted above, Charter has committed to take the remaining TWC and BHN areas all-digital within 30 months of closing. As those areas are upgraded to all-digital, New Charter will market services consistent with Charter's current offerings, including its 60 Mbps broadband service.

Response to Request 105(b):

Charter has not yet formulated its migration plans for TWC and BHN customers in detail; Charter's planning must remain fluid to reflect the dynamic nature of due diligence and information sharing, some of which will occur only after closing, as well as market conditions. In general, Charter plans to harmonize the operating platforms between the companies and offer Charter's product packaging, pricing, and service to TWC and BHN customers. Implementing the new operating strategy at TWC and BHN will be a significant undertaking that will touch all areas of TWC's and BHN's operations. The ongoing diligence process aims to develop plans for a seamless customer transition in areas such as billing, provisioning, and network design and

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operations, and moving both TWC and BHN customers to Charter's Spectrum product set and pricing and packaging as quickly as possible, including the completion of the all-digital programs. The current diligence and planning work is focused on designing management structures, unified technology, and common practices for an integrated operating state at the new company. Developing work plans that cover the period of time between the date of the closing of the transactions to this integrated operating target date is underway, but a detailed cost budget is not yet developed and will not be finalized before closing.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL

INFORMATION]. But as Charter had only publicly available financial and operating information for TWC, and limited diligence from BHN at the time the acquisition business plan was drafted, these were high-level estimates based on the combined experience of Charter's senior management team. Charter management assumed **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** of integration-related, one-time costs and **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]** of re-branding costs. **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]. Additionally, these estimates do not cover any investments in systems or the cost to take the TWC and BHN systems all-digital.

Response to Request 105(c)-(g):

Charter has begun to assess the key product and service issues that will arise from the migration of TWC and BHN customers. While planning is still in the evaluative phase and will remain fluid as Charter receives additional information and data until and after closing, Charter has identified certain parameters to ensure that the transition is as seamless and subscriber friendly as possible. A few examples are illustrative. In each case, Charter has no plans to take away any services or products from legacy TWC or BHN subscribers. Instead, New Charter will market services consistent with Charter's current packaging and pricing strategies to consumers in TWC and BHN service areas, including current subscribers who choose to opt into New Charter's offerings.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]. As noted in response to Request 73, neither the precise makeup of the offerings nor the go-to-market strategy has been resolved, but the offerings (**[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] will be consistent with Charter's current NPP. Charter will not be able to develop a comprehensive understanding of the service offerings and pricing that are currently available in various TWC and BHN markets until the relevant information and data become available after the Transaction closes.

Charter has made some initial product and service decisions or identified possible scenarios under **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]** **[END HIGHLY CONFIDENTIAL INFORMATION]**, as follows:

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

1.

[END HIGHLY CONFIDENTIAL INFORMATION]

2. With respect to *CPE*:

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Charter’s current plans are to support existing digital-to-analog (“DTA”) customers. Charter intends to **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

b.

[END HIGHLY CONFIDENTIAL INFORMATION]

Ultimately, Charter plans, per its own billing model, not to charge a modem rental fee **[BEGIN HIGHLY CONFIDENTIAL**

INFORMATION]

[END HIGHLY

CONFIDENTIAL INFORMATION]

With respect to *programming guides*, **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

4.

²¹³ Charter also intends to stop deploying MoCA WiFi extenders.

[END HIGHLY CONFIDENTIAL INFORMATION]

5. With respect to *e-mail*, legacy TWC and BHN subscribers will be able to maintain their existing e-mail addresses. New subscribers will receive an @spectrum.net address as soon as possible post close.

Documents in support of the Company's response to Request 105 are provided in the enclosed hard drive in the folder "Request 105." Charter will include any additional documents responsive to this Request in its production of documents to the Commission.

REQUEST 106

106. Produce, in both (i) PDF and (ii) ESRI Shapefile format, a map showing the location of each cable system owned by, operated by, managed by, or attributed to the Company.

Response to Request 106:

The map responsive to this Request, in both requested formats, is being provided as Exhibits 106-1 (PDF) and 106-2 (Shapefile).

REQUEST 107

107. Identify, as of June 30, 2012, December 31, 2012, June 30, 2013, December 31, 2013, June 30, 2014, December 31, 2014 and June 30, 2015, each cable system owned by, operated by, managed by, or attributed to the Company, and for each cable system identify the nature of the Company's interests, and state and identify the following in CSV format files:

- a. the Company's data as specified in Attachment A, which seeks data relating to geographic identifiers associated with each cable system;
- b. the facilities-based competing providers of Internet access service and MVPD service (excluding private cable and wireless cable operators), separately identified by service and provider, and the distribution technology used by the competing provider (e.g., wireless, fiber optic cable, hybrid fiber optic cable, or satellite) for each zip code served;
- c. internal estimates of the percentage of homes passed that are overbuilt by any facilities-based competing provider of MVPD service and Internet access service separately for each such competing provider;
- d. the total capacity and the total unused capacity of each of the Company's cable systems by (i) MHz and the spectrum allocated to each cable service and any other service, and (ii) the number of non-broadcast programming networks;
- e. the headends serving each cable system, their physical locations, and the number of subscribers to each Cable Service served by each headend; and
- f. the channel lineups associated with each channel lineup identifier provided in Request 107(a).

Response to Request 107(a):

Charter's responses to Request 107(a) are provided in Exhibits 107(a)-1 and 107(a)-2 in the enclosed hard drive in the folder "Request 107," which consist of geographic identifier information on Charter's cable systems as of mid-year and year-end 2012 through 2015. These cable systems are tracked as divisions of Charter's cable services footprint. With two exceptions, the geographic identifier information included in this exhibit is sourced from the customer-level EDW database for Charter residential and bulk subscribers. The specific information on CUIDs and PSIDs presented in this Exhibit is queried by Charter from an online FCC database for the purpose of completing filings requested for each CUID, such as Form 320.

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Exhibit 107(a)-1 provides the geographic units crosswalk for all columns requested except CUID, which, as explained below, is not tracked by Charter in such a way that CUIDs can be uniquely associated with census blocks. The field “date” shows the date as of which the requested information is provided. Note that Charter’s EDW database collects snapshots regarding Charter’s residential subscriber base on the 21st day of each month, so this information is actually provided as of the 21st of each requested month, rather than the 30th or 31st.

The field “census_block” shows the 15 digit FIPS code for the census block served by Charter. The EDW database from which this field is [BEGIN HIGHLY CONFIDENTIAL INFORMATION] [END HIGHLY CONFIDENTIAL INFORMATION]. However, a record for a census block will nonetheless appear in the table if it is identified for at least one subscriber within the block, and Charter believes the census blocks identified in EDW represent a highly accurate view of its service territory. Also, the data in Exhibit 107(a)-1 includes records with missing census block values but with values for nine-digit zips, thus preserving all available information on nine-digit zips containing Charter subscribers and higher levels of geography. The field “zip_plusfour” shows the five-digit zip code followed by the four digit extension for the given census block. The field “zip” shows the five-digit zip code for the given census block. The field “glid” shows the general ledger identification number (“GLID”) for the given census block. The fields “market_id” and “market_name” show the identification number and market name, respectively, for the Key Market Area (“KMA”) for the given census block.

Charter delineates its cable systems by what are internally known as “channel lineups,” a geographic designation that is defined based on a unique MVPD service offering to residential subscribers. These channel lineups are subdivisions of cable headends and divide the Charter

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footprint into several hundred geographic areas. All such cable systems are 100% owned by Charter. The fields “headend_id” and “headend” show the internal code and name associated with each cable headend. The fields “lineup_id” and “lineup_name” show the name and internal code associated with each cable system. The field “PSID” shows the PSID currently associated with each cable system. As discussed further below, Charter does not maintain historical data on PSID definitions; however, PSIDs map on a one-to-one basis with headends. Finally, the fields “dma_code” and “dma_name” show the number and name, respectively, of each DMA served by the cable system.

Charter uses the designations CUID and PSID only for filing FCC forms in the normal course of business, so they are sourced from the FCC database as needed. As a result, Charter only retains information on how its cable systems currently map to CUIDs and PSIDs; Charter does not systematically retain this information as of any previous date, including the dates identified in this Request. Charter also understands that the FCC database on CUIDs and PSIDs only contains current definitions and that no historical information is available. Charter is not aware of another source for this information. However, Charter also understands these designations remain largely unchanged over time; Charter expects that with few exceptions, the current mapping of its cable systems to CUIDs and PSIDs would still be accurate back to mid-year 2012. For any CUIDs and PSIDs that have been consolidated or discontinued, however, those historical designations are not captured in this Exhibit.

PSIDs map on a one-to-one basis to headends, which allows them to be associated with census blocks and to be included in Exhibit 107(a)-1. However, headends (and PSIDs) contain multiple CUIDs, and Charter does not maintain data on the CUID associated with each customer

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or each census block served. Accordingly, Charter is only able to associate CUIDs with larger geographic units.

Charter's response to this Request as it relates to CUIDs is contained in Exhibit 107(a)-2. The field "cuid" shows the CUID(s) currently associated with each Charter cable system, as defined for FCC compliance purposes. The field "psid" shows the PSID currently associated with each cable system. The fields "headend_id" and "headend" show the internal code and name associated with each cable headend. The field "glid" shows the general ledger identification number (GLID). Finally, the fields "market_id" and "market_name" show the identification number and market name, respectively, for the Key Market Area (KMA) for the given census block.

Response to Request 107(b):

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY

CONFIDENTIAL INFORMATION]. Charter competes with numerous firms in all geographies. As Charter states in its most recent Annual Report on Form 10-K:

We face competition for both residential and commercial customers in the areas of price, service offerings, and service reliability. In our residential business, we compete with other providers of video, high-speed Internet access, voice services, and other sources of home entertainment. In our commercial business, we compete with other providers of video, high-speed Internet access and related value-added services, fiber solutions, business telephony, and Ethernet services. We operate in a competitive business environment, which can adversely affect the results of our business and operations. We cannot predict the impact on us of broadband services offered by our competitors.

In terms of competition for customers, we view ourselves as a member of the broadband communications industry, which encompasses multi-channel video for television and related broadband services, such as high-speed Internet, voice, and other interactive video services. In the broadband communications industry, our principal competitors for video

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services are direct broadcast satellite (“DBS”) and telephone companies that offer video services. Our principal competitors for high-speed Internet services are the broadband services provided by telephone companies, including both traditional DSL, fiber-to-the-node, and fiber-to-the-home offerings.

See Charter’s Annual Report on Form 10-K, as of December 31, 2014. Some of Charter’s key competitors include, among others:

Video

DirecTV and Dish Networks

AT&T U-verse, Verizon FiOS, CenturyLink Prism

Internet

HughesNet (DirecTV), dishNET (Dish), Wild Blue, Exede Internet

AT&T, Verizon, T-Mobile, Cricket, Virgin Mobile, Sprint, Metro PCS, US Cellular

AT&T U-verse, Verizon FiOS, CenturyLink, Frontier, WOW!

Additional responsive information is contained in Exhibit 107(b)-1 and Exhibit 107(b)-2, which is provided in the enclosed hard drive in the folder “Request 107,” consisting of additional information on firms that compete with Charter in the provision of MVPD and Internet access services. Specifically, these exhibits consist of reports provided by Centris Marketing Science (“Centris”) that Charter purchased for the purpose of responding to this Request. Please note that Charter instructed Centris to limit the reports only to larger competitors, rather than all competitors tracked generally by Centris. Exhibit 107(b)-1 and Exhibit 107(b)-2 therefore are not intended to represent an exhaustive set of competitors for the relevant services.

Exhibit 107(b)-1 contains data regarding competition for MVPD services, and Exhibit 107(b)-2 contains data regarding competition for Internet access services. In Exhibit 107(b)-1 the data show a number of residential and other competitors for MVPD services and whether or not they competed, for each zip code in the Charter footprint and for each month from January

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2010 to June 2015, along with information on the type of distribution technology used by the competing provider. In Exhibit 107(b)-2, the data show a number of residential and business competitors for Internet access service and whether or not they competed, for each zip code in the Charter footprint and for each month from January 2009 to June 2015, along with information on the type of distribution technology used by the competing provider.

Response to Request 107(c):

Data Responsive to this Request will be provided in subsequent production.

Response to Request 107(d):

Charter's response to Request 107(d) is being provided on the accompanying disk in a file called "Channel Lineup Utilization and KMA EIA Reports – Request 107(d)" in Folder "Request 107."

In July 2007, the FCC mandated that analog broadcasters transition to transmitting their signals in digital format. In response to this Request, Charter gathered bandwidth data, including total capacity and unused capacity of cable systems, for each channel lineup from various regional field offices and put into centralized reports for analytical and reporting purposes. This data was manually gathered, as there was no way to systemically measure bandwidth across Charter's network. From approximately 2006 through mid-2009, such bandwidth data by channel lineup were collected by Charter and included in Channel Lineup Utilization reports.

During this period, each change made to either MVPD programming services or bandwidth was tracked in these reports. Additionally, Charter developed a set of rules to standardize these data across systems, as well as to validate the accuracy of bandwidth in relation to MVPD programming services. Monthly snapshots of these Channel Lineup Utilization reports for January through December 2009 will be included in Charter's production of documents in the folder noted above.

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Due primarily to changes in technology over time, such as the emergence of simulcasting and switched digital video, the business justification for routinely collecting and maintaining these data in a centralized report declined, and by the end of 2009, Charter ceased doing so. In 2012, Charter conducted a one-time survey of the capacity and utilization of its cable systems for the purpose of planning the allocation of Charter's bandwidth into the future. The results of this effort are captured in Charter's KMA EIA Report of March 20, 2012, which also will be included in Charter's production of documents, in the folder mentioned above. These data were collected manually from Charter's regional field offices and neither the collection process nor the data collected was standardized or validated for accuracy.

For the 2014 Charter Response to Request 2(i), Charter undertook an effort to gather data to update the March 2012 KMA EIA Report with current data. The results of this effort are captured in the KMA EIA Report of August 2014, which will be included in Charter's production of documents as well. Like the March 2012 report, these data were manually gathered from Charter's regional field offices and were not standardized or validated. Charter is not aware of other sources of information responsive to this Request 107(d).

Response to Request 107(e):

Data Responsive to this Request will be provided in subsequent production.

Response to Request 107(f):

In response to Request 107(f), Charter provides historical channel lineups (as well as rate cards) by area and two excel spreadsheets that map the pdf documents to zip codes, all of which will be included in Charter's production of documents to the FCC in a file called "Channel Lineups and Rate Cards – Request 107(f)" on the accompanying disk in folder "Request 47."

REQUEST 108

108. For each zip code identified in Request 107(a) and for the Company as a whole, separately for residential subscribers, bulk residential, and non-residential subscribers, and for each month for the period beginning June 2012 through August 2015 provide the following:

- a. the Company's data as specified in Attachment B, which seeks subscriber data relating to each of the Company's service plans;
- b. a complete description of all services that were included in the Company's response to the "Monthly Recurring Revenue" (MRR), "Monthly Recurring Core Service Plan Revenue", and "Monthly Recurring and Non-Recurring Revenue Per Subscriber" (ARPU) fields in the "Service Plan" table provided for subpart (a);
- c. the Company's data as specified in: i) Attachment C. 1, which seeks data relating to subscriber counts; ii) Attachment C.2, which seeks data relating to disconnects; iii) Attachment C.3, which seeks data relating to new connects; iv) Attachment C.4, which seeks data relating to continuing subscribers; v) Attachment C.5, which seeks data relating to Internet Access Service tier transitions; vi) Attachment C.6, which seeks data relating to sidegrades; vii) Attachment C.7, which seeks data on long-run customer behavior; viii) Attachment C.8, which seeks data relating to churn by tenure; and ix) Attachment C.9, which seeks data relating to recent downgrades; and
- d. a description of the main types of disconnects that are included in each of the four categories of disconnects - mover, voluntary, non-payment, and all other - reported in Attachment C.2 and an explanation of the methodology the Company uses to estimate the number of disconnects in each category, including a discussion of the extent to which the Company is unable to obtain information on the reason for the disconnect and how the disconnect is classified in such cases.

Response to Attachment B "Service Plan Data" Table Columns CA-CB:

Charter's response to Request 108(a), Attachment B "Service Plan Data" – Columns CA-CB, is provided in Exhibit 108(a)-1 in the enclosed hard drive in the folder entitled "Request 108," which consists of information on Charter's total costs for one-time subscriber acquisition and retention payments, by zip code, on a monthly basis from January 2013 to August 2015.

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY

CONFIDENTIAL INFORMATION] This information is provided for subscribers in the zip codes identified in Charter’s response to Request 107(a). [BEGIN HIGHLY
CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL
INFORMATION] Data included in Exhibit 108(a)-1 were collected by Charter’s marketing department specifically for the purpose of complying with this Request. Charter’s response includes data on installation discounts, contract buyouts, gift cards, and Charter’s promotional Kindle offering. [BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION] Contract buyout data is available for residential and commercial subscribers.

The field “date” in Exhibit 108(a)-1 shows the month over which the requested metrics are reported. The field “zip” shows the zip code served by Charter. The field “install_quantity” shows the total number of residential installations for a given zip code and month; “install_disc” shows the amount that Charter’s residential subscribers received in discounts for installation of Cable Services, for the given zip code and month, in dollars. Note that data on installation discounts provided to residential subscribers prior to March 2013 is no longer available to Charter. The field “resi_cbo_costs” shows the amount that the Company’s residential subscribers received in contract buyouts to switch to Charter from another provider of Cable Services, for the given zip code and month, in dollars. Note that for a small number of residential contract buyouts, Charter is unable to determine the zip code. As such, these amounts

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are provided separately by state in Exhibit 108(a)-2. The field “com_cbo_costs” shows the amount that the Company’s commercial subscribers received in contract buyouts to switch to Charter from another provider of Cable Services, for the given zip code and month, in dollars. The field “giftcard_quantity” shows the quantity of gift cards that the Company’s residential subscribers received to renew or begin a subscription to Charter’s Cable Services, for the given zip code and month; “giftcard_costs” shows the amount that the Company’s residential subscribers received in gift cards, for the given zip code and month, in dollars. The field “kindle_quantity” shows the quantity of promotional Kindle Fire devices that Charter’s residential subscribers received to renew or begin a subscription to the Company’s Cable Services, for the given zip code and month. This program was commenced by Charter beginning in the 4th quarter of 2014. The field “kindle_costs” quantifies the value associated with promotional Kindle Fire devices that Charter residential subscribers received, for the given zip code and month, in dollars.

Response to Request 108:

Data responsive to this Request will be provided in a subsequent production.

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REQUEST 109

109. For each zip code identified in Request 107(a) and for the Company as a whole, separately for each VOD service (Subscription, Free, Transactional, Pay-Per-View) and for each month for the period beginning June 2012 through August 2015, state and provide the following:

- a. the Company's data related to VOD as specified in Attachment D; and
- b. in a separate CSV format file, for each VOD service, and for each month for the period beginning June 2012 through August 2015: (1) the total revenues; (2) the total cost of video programming distribution rights; (3) the total number of hours viewed; (4) the price of the service and a description of all discounts or promotions that were in effect; and (5) the percentage of the Company's MVPD subscribers that view video programming via the service.

Response to Request 109:

Data responsive to this Request will be provided in a subsequent production.

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REQUEST 110

110. For video programming that the Company obtained from another person, separately for each month from June 2012 through August 2015, provide the following:

- a. the Company's video programming data as specified in Attachment E; and
- b. in a separate CSV format file, the name and genre of video programming produced by any person that the Company chose not to obtain and the reasons(s) why the Company chose not to carry the network.

Response to Request 110:

Data responsive to this Request will be provided in a subsequent production.

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REQUEST 111

111. Provide the Company's internet traffic exchange data as specified in Attachment F.

Response to Request 111:

Data responsive to this Request will be provided in a subsequent production.

REQUEST 112

112. For all non-broadcast programming networks distributed on a national basis in which the Company or an officer, director, or executive of the Company, holds an attributable Interest or distribution rights, please provide:

- a. a complete description of the nature of the attributable interest or distribution rights in the programming network held by the Company, or any officer, director or executive of the Company;
- b. an economic analysis of the effect of the proposed transaction on the merged entity's incentive to permanently withhold these nationally-distributed programming networks from MVPDs and OVDs;
- c. an economic analysis of the effect of the transaction on the merged entity's ability and incentive to raise prices of this nationally-distributed programming to MVPDs and OVDs;
- d. a detailed description of the methodology employed in subparts (b) and (c) as well as the underlying data and documents used to determine the various parameters, including but not limited to: critical departure rates; empirical estimates of actual departure rates; evidence regarding the likely value of estimated departure rates in this transaction; the profit margins on different bundles of services; subscriber counts; the profit margin on the average subscriber that would be induced to switch from a rival to the Company if the programming were withheld from the rival; programming fees; programming costs; subscriber counts and shares; per-subscriber license fees, per-subscriber gross and net advertising revenue, departure rates, diversion rates, and churn rates; and
- e. in a CSV format file, separately for each national network, and separately for each month beginning June 2012 and through August 2015, state and provide the following: total monthly advertising revenues, the total monthly advertising costs, and total monthly affiliate fee revenues by MVPD.

Response to Request 112(a):

Charter incorporates by reference the interests²¹⁴ and distribution rights listed in its response to Request 7, except that interests associated with Advance/Newhouse listed in the response to Request 7 are outside the scope of Request 112(a), as no current Charter officer or

²¹⁴ Charter and the holders of the interests in question (including Liberty Interactive and Dr. Malone) do not necessarily concede that all of those interests are "attributable" within the meaning of the Commission's rules.

director, to Charter's knowledge, has a present attributable interest in Advance/Newhouse. In addition, the interests of Tribune Media Company listed in response to Request 7, with the exception of WGN America, are also outside the scope of this Request insofar as they represent broadcast and/or local or regional networks rather than non-broadcast national programming networks.

Response to Request 112(b):

Charter does not own, control, or distribute any of the nationally distributed non-broadcast programming networks encompassed by its response to RFI 112(a), nor will the merged entity; rather, ownership, control, and distribution rights for those networks will remain vested in other individuals and entities. For instance, Charter does not own, control, or distribute Discovery Communications' programming—nor will the merged entity. Because one cannot withhold something that one does not and cannot distribute in the first place, Charter has no incentive to permanently withhold those networks from MVPDs and OVDs, nor will the merged entity have any such incentive.

Response to Request 112(c):

Charter does not own, control, or distribute any of the nationally distributed non-broadcast programming networks encompassed by its response to RFI 112(a), nor will the merged entity; rather, ownership, control, and distribution rights for those networks will remain vested in other individuals and entities. For instance, Charter does not own, control, or distribute Discovery Communications' programming—nor will the merged entity. Because one cannot raise prices on something that one does not and cannot sell in the first place, Charter has no incentive to raise prices of this programming to MVPDs and OVDs, nor will the merged entity have any such incentive.

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Response to Request 112(d):

As reflected in Charter's responses to Requests 112(b) and 112(c), no economic analysis would be appropriate regarding the merged entity's incentives to withhold, or raise prices on, programming that it does not own or control. Accordingly, there is no methodology to be described, nor are there supporting data and documents to provide.

Response to Request 112(e):

Because Charter does not have managerial or operational control over any of the non-broadcast programming networks responsive to this Request, information regarding their respective advertising revenues, advertising costs, and total monthly affiliate fees as sought by this Request are not within the custody or control of the Company.

REQUEST 113

113. For each month in which usage-based pricing was in effect, and for each zip code identified in the Company's response to Request 108(a), and monthly for one year before and one year after usage-based pricing was in place, please provide the subscriber data for plans that included Internet Access service:

- a. the Company's usage based pricing data as specified in Attachment G.

Response to Request 113:

As set forth in Charter's responses to Requests 35 and 36, *supra*, Charter does not engage in UBP and has not done so during the relevant period. Accordingly, the Company does not have information responsive to this Request.

REQUEST 114

114. For each market region identified in Request 107(a) and for the Company as a whole, separately for residential subscribers, bulk residential, and non-residential subscribers, and for each month for the period beginning June 2012 through August 2015, provide the following:

- a. the Company's data as specified in Attachment H, which seeks data relating to non-advertising revenues by Bundled Services;
- b. the Company's data as specified in Attachment I, which seeks data relating to Cable Services costs and advertising revenues;
- c. a complete and detailed description of the revenue elements the Company includes in each of the following categories of revenues reported in Attachments H and I: MVPD advertising revenues; Internet Access Service advertising revenues; total non-advertising revenue; recurring non-advertising revenue; and non-recurring non-advertising revenue; and
- d. a complete and detailed description of the cost elements that the Company includes in each of the following categories of costs reported in Attachment I: total programming cost; total MVPD advertising cost; total Internet Access Service advertising cost; variable cost of providing MVPD service other than programming cost and advertising cost; variable cost of providing Internet service other than advertising cost; and variable cost of providing phone service.

Response to Request 114:

Data responsive to this Request will be provided in a subsequent production.

REQUEST 115

115. Provide all Company documents that employ, discuss or calculate customer lifetime value (“CLV”) or any other concept related to the present discounted value to the Company of acquiring a new customer for any Bundled Service.

Response to Request 115:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 116

116. State and describe in detail the Company's most current and best estimate of CLV or present discounted value to the Company of acquiring a new customer for each Cable Service or Bundled Services, including a description of how the calculations were performed. Provide all data that the calculations are based upon and programs used for the calculations.

Response to Request 116:

[BEGIN HIGHLY CONFIDENTIAL INFORMATION]

[END HIGHLY CONFIDENTIAL INFORMATION]

REQUEST 117

117. Table 4 in Professor Fiona Scott Morton's Declaration of the Application (Exhibit D) provides estimates of the average revenue per user, average gross margin, and average variable cost for TWC, Charter and Bright House, for MVPD Service, Internet Access Services and Telephone Service to residential customers. Please provide:

- a. all source documents, data and code relied on or produced by Professor Fiona Scott Morton;
- b. an explanation for whether the calculations in Table 4 are for primary residential subscribers, bulk residential subscribers, or all subscribers as a whole, and the time period for which the calculations are relevant;
- c. provide a revised version of Table 4 that disaggregates average video revenue per user into average advertising revenue per user and average non-advertising revenue per user and disaggregates average video variable cost per user into average advertising cost per user and average non-advertising cost per user, provide a complete and detailed explanation of these additional figures were calculated and all source documents and data used to derive them;
- d. a complete and detailed description of the cost elements included in the category "other variable costs" from Table 4 of the Scott Morton Declaration and an explanation of why these are the appropriate cost elements to include in this category;
- e. a complete and detailed description of the various cost elements that are included in the category "variable cost of broadband service" from Table 4 of the Scott Morton Declaration and an explanation of why these are the appropriate cost elements to include in this category;
- f. a complete and detailed description of the various cost elements that are included in the category "variable cost of phone service" from Table 4 of the Scott Morton Declaration and an explanation of why these are the appropriate cost elements to include in this category; and
- g. an explanation for why these estimates are the Company's best current estimates of average revenue per user, average gross margin and average variable cost for the Company's MVPD services, Internet Access services and Telephone services to residential customers, or provide an analysis that presents the Company's current best estimates, including a detailed explanation of how the estimates were derived and all source data and documents used in any additional.

Response to Request 117(a):

A complete Excel version of Dr. Scott Morton's Table 4 is provided in Exhibit 117-1 in the enclosed hard drive in the folder "Request 117." The Excel file shows all calculations and specifies each source and data point used to calculate Table 4. A complete set of the data and documents provided by each party for the preparation of Table 4 has been included. The data regarding revenues and direct expenses by service for each of the parties reflect figures prepared by the parties in the ordinary course of business.

Response to Request 117(b):

The figures in Table 4 of Dr. Scott Morton's declaration reflect calendar year 2014 revenues and gross margins for total residential services.

Response to Request 117(c):

The Excel file for Table 4 includes a breakout of both the video revenue and video direct expenses per subscriber between advertising and non-advertising sources. All source documents and calculations used for Table 4 are provided in the enclosed hard drive in the folder "Request 117."

Response to Request 117(d)-(f):

The Excel file for Table 4 shows both the total and details for the direct expenses included for each service as assembled by each party in the course of business. Some direct expenses are for shared costs incurred by multiple video, broadband, and/or phone services. The direct expenses used for Table 4 reflect the allocation of these shared costs.

Response to Request 117(g):

The data in Table 4 are derived from the raw data in the Excel file for Table 4 in the tabs after Raw->/Charter, based on the calculations in the tab Intermediate->/Charter. The raw data includes basic financial information such as revenues and direct costs for specific cost items,

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which the Company tabulates and relies upon in the ordinary course of business. That information is derived directly from Charter's financial system every month, is reviewed and approved by accounting, and is used by Charter in discussions of business performance.²¹⁵

²¹⁵ The raw data in the Excel file related to advertising margins **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION] In the ordinary course of business, Charter tracks **[BEGIN HIGHLY CONFIDENTIAL INFORMATION]**

[END HIGHLY CONFIDENTIAL INFORMATION]. The data in the Excel file is derived from the advertising margins that Charter keeps in the ordinary course of business.

REQUEST 118

118. For each relevant service, identify each electronic or other database or data set used or maintained by the Company at any time after January 1, 2012, without regard to custodian, that contains information concerning the Company's (i) sales; (ii) prices; (iii) margins; (iv) costs, including but not limited to, programming costs, distribution costs, standard costs, expected costs, and opportunity costs; (v) patents or other intellectual property; (vi) research or development projects; (vii) licensing of video programming; (viii) customers; and (ix) network performance, to the extent such customer information is not provided in response to other Requests elsewhere in the document. For each such database, identify (a) the database type, i.e., flat, relational, or enterprise; (b) the size in both number of records and bytes of information; (c) the fields, query forms, and reports available or maintained; and (d) any software product or platform required to access the database.

Response to Request 118:

Data responsive to this Request will be provided in a subsequent production.

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REQUEST 119

119. Provide one copy of (and identify the Bates number of) each agenda, summary, or minutes of any meeting of the board of directors of the Company, and one copy of each presentation or other document provided to the board (except documents solely relating to environmental, tax, human resources, OSHA, or ERISA issues).

Response to Request 119:

Any responsive, non-privileged documents are being provided on the enclosed hard drive.

REQUEST 120

120. Produce in Excel format, a chart listing the identity of each document cited in or used to support your narrative responses to each of the Information and Data Requests and for each document include the Information and Data Request number(s) for which it was used.

Response to Request 120:

As agreed with Commission Staff, Charter is providing documents in folders corresponding to the relevant questions in lieu of the requested chart.